



217/785-0830

969688

March 25, 1992

Dear Resident:

Last summer, the Illinois Environmental Protection Agency (IEPA) collected soil samples from 10 residential yards in your neighborhood. These soil samples were taken to evaluate the impact of Jennison-Wright Corporation activities upon surface soils in your neighborhood. Sample analyses included tests for chemicals used by Jennison-Wright to treat wood. These chemicals include pentachlorophenol, other chemicals associated with pentachlorophenol, and chemicals found in creosote (polycyclic aromatic hydrocarbons or PAHs).

**What was found?** Soil samples showed slightly greater concentrations of PAHs in your neighborhood than in a soil sample taken about one-half mile north and west of your neighborhood.

No pentachlorophenol was detected in the soil samples. Special analyses were begun to evaluate the presence of chemicals associated with pentachlorophenol called chlorinated dibenzodioxins and dibenzofurans (CDDs and CDFs). Technical problems require that these analyses be repeated. The IEPA is presently finalizing plans for resampling and reanalysis of residential soils for CDDs and CDFs. Based upon earlier work at this site and other similar sites, the IEPA expects that, if detected, the concentrations will most likely be extremely small and below a level of health concern.

**Is there an immediate health hazard?** Based upon available data, there is no immediate health hazard. However, until more is known, we suggest you reduce your family's exposure to soil and dust as much as possible. PAHs, CDDs, and CDFs are easy to avoid when they are found in soils because they bind strongly with soil particles. By avoiding soil, one can avoid these chemicals. Specific, common sense suggestions include:

- 1) Supervise children when they have snacks outdoors to make sure that food does not come into contact with soil.
- 2) Wash hands before eating.
- 3) Wash and/or peel homegrown fruits and vegetables; especially those that grow in or on the soil, such as root crops, cucumbers, or squash.
- 4) Wear gloves when gardening and remove dirt from shoes before entering house.
- 5) Provide a sandbox for children inclined to digging and discourage playing in the soil.

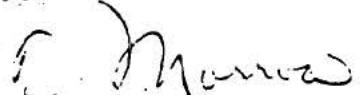
**What are the next steps?** Soil sample and other results are being used to determine whether or not the site is eligible for the National Priorities List (NPL), sometimes called the Superfund List. This evaluation should be made late this year or early next year. If the site is eligible for the NPL, federal money will be available to conduct a thorough environmental investigation of the site and surrounding properties and, if necessary, to clean up or contain contaminants associated with the site. In this process, the public has opportunity to comment upon the remedy before final action is taken.

**Where do I obtain more information?** The results of the soil analysis will be placed in the repository for Jennison-Wright located at the Granite City Library. The CDD and CDF results are not included in this repository because of the problems with the data.

If you have any questions regarding this letter or the Jennison-Wright facility in general, you may contact the IEPA by writing or calling:

Virginia Wood, Community Relations Coordinator  
Illinois Environmental Protection Agency  
2200 Churchill Road  
P. O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5562

Sincerely,



Leslie D. Morrow  
Environmental Toxicologist  
Office of Chemical Safety

LDM/G/008/psf



Jennison-Wright

**SITE HISTORY:**

The Jennison-Wright Corporation site is a deactivated facility where railroad ties and wood blocks were treated. The site was closed in 1990 as part of a Chapter 11 bankruptcy proceeding. This site is approximately 26 acres in size. The northern part of the site was used for tie trimming, treated tie off-loading and treated tie storage. The southern half of the facility is where the railroad ties and wood blocks went through either creosote or zinc napthenate processing. Residential areas are to the west and north of the site with industrial areas to the east and south.

Operations began on site around 1915. Creosote had been used since operations began. Pentachlorophenol was used from the early 1970's until 1984. Zinc napthenate was used from 1984 to 1990. An asphalt driveway sealer composed of coal tar derivatives and montmorillonitic clay was also manufactured at this facility. Asbestos has been detected on the site. The asbestos contamination is believed to be the result of salvage operations conducted during the site deactivation.

Area G (see Past Waste Disposal Areas map) is a filled-in lagoon that was used for the disposal of creosote contaminated wastewater and sediments before 1972. Area E was used from 1973 to 1981 for disposal of contaminated wastewater, waste coal tar pitch, and other materials. Area H was also used for the disposal of creosote contaminated water. Creosote contaminated run-off water collected in the railroad ditch.

The IEPA has collected soil and groundwater samples involving a complete suite of constituents. Poly aromatic hydrocarbons (PAH's), lead, pesticides, pentachlorophenol, Dioxins and Furans have been found both on and off site. A minimal site stabilization removal was conducted during the spring of 1992. Only asbestos contaminated material was removed from the site during the 1992 stabilization.

Located immediately next to the facility (see attached map) is a residential neighborhood. HRS sampling conducted within yards in the neighborhood indicate elevated levels of PAH's, Dioxin, Furans and lead. The site is presently being scored under HRS II.

**SUGGESTED REMEDIAL ACTIVITY:**

The following areas are suggested for remediation (see attached map)

1. Area H - Off-site disposal area
2. Area G - 22nd Street Lagoon
3. Area E - Jennite Pit
4. Drum Storage Area
5. Storage Tanks/Tank Farm



## BACKGROUND

### Fact Sheet

Jennison-Wright  
Granite City, Illinois  
August, 1989

#### What is the problem?

Chemicals used in the wood treating process have contaminated the soil and groundwater at the Jennison-Wright site located at Missouri and 22nd Streets in Granite City. The contamination is the result of years of handling wood treating chemicals at this facility since it began operation in the early 1900's.

#### What has been done?

ON-SITE: Jennison-Wright hired Woodward-Clyde Consultants to conduct on-site sampling of soil and groundwater and submitted results to the Illinois Environmental Protection Agency (IEPA) in 1988.

OFF-SITE: In November, 1988 the IEPA collected a select number of soil, private well water, and wipe samples from areas bordering the Jennison-Wright property. Wipe samples are samples taken from the surfaces of exterior structures for evidence of airborne release of contaminants.

#### What has been found?

ON-SITE: Chemicals found in the on-site soil and groundwater samples include:

1. Chemicals found in creosote which is used in wood treatment. Many of these chemicals are classified as polynuclear aromatic compounds (PNAs).
2. Pentachlorophenol (PCP) which was used in the past at the facility for wood treatment.
3. Contaminants of PCP. These contaminants include hepta (HpCDD) and octa (OCDD) dibenzodioxin and furans. There are many types of dioxins and furans the most toxic being 2,3,7,8 tetrachlorodibenzo-p-dioxin (2,3,7,8 TCDD) which was found at Times Beach, Missouri. 2,3,7,8 TCDD has not been detected on Jennison-Wright property from the sampling which has taken place to date.

OFF-SITE: Chemicals found on-site which were detected in off-site samples include:

1. Chemicals found in creosote including PNA's. PNAs were detected in off-site soil and wipe samples.
2. Pentachlorophenol. PCP was detected in soil samples taken near the plant.
3. Contaminants of PCP. Low levels of contaminants related to PCP, including HpCDD and OCDD, were detected in off-site soil and wipe samples. One non-residential soil sample, taken near the eastern fence of Jennison-Wright, had extremely low levels (7.351 parts per trillion) of 2,3,7,8 TCDD. All off-site soil samples collected to date contained concentrations of dioxins lower than the level set by the U. S. Environmental Protection Agency as a cleanup objective for residential soil.
4. Several other chemicals. Several chemicals, mostly unidentified, were found in low concentrations in the two private well samples. These wells are used primarily for watering lawns and gardens and not for drinking water. The owners have been notified.

The investigation performed thus far is limited. More samples including air, soil and water samples need to be taken to evaluate the extent of contamination.

Do these chemicals pose an immediate threat to my health or the health of my children?

With data available to date, no. Although all types of dioxins are a concern, concentrations found in residential soil at this time were lower than the cleanup level established by USEPA at Times Beach and do not pose an immediate health threat. Sample results also indicate that there is no immediate health threat from PNAs.

Do these chemicals pose a possible future threat?

The IEPA and the Illinois Department of Public Health are evaluating data to evaluate whether people exposed for a lifetime (70 years) to these chemicals at the concentrations found would experience an increased health threat. Additional investigations will help evaluate the extent of exposure.

What are ways a person can reduce exposure to these chemicals? By reducing contact with soil, a person can reduce his or her exposure. The following steps are suggested, not because of an immediate concern, but as precautions a person can take now to reduce his or her long term exposure to contaminants in the soil.

(1) Keep children from playing in the soil as much as possible.

(2) Wash your hands and the hands of your children before eating or snacking.

- (3) Close your windows, if possible, when the wind is blowing.
- (4) Vacuum frequently including heating and air conditioning ducts.
- (5) If you grow vegetables in your yard, wash them thoroughly before eating. Paring the outer layer may further reduce contact with soil.

What is going to be done?

The IEPA is pursuing two pathways of action at this time.

1. The IEPA is negotiating with Jennison-Wright to conduct a remedial investigation/feasibility study (RI/FS). An RI/FS is an investigation to determine nature and the extent of contamination and a study of alternatives to contain or treat contamination. Based on the results of the RI/FS, a remedy will be selected for the containment or treatment of the contamination at the site. The agreement between the two parties would be part of a consent decree filed in the Madison County Circuit Court.
2. The IEPA will send a package of information to the U.S. Environmental Protection Agency (USEPA) which will include the results from the November 1988 soil, private well, and wipe samples. The USEPA will evaluate the package to determine if the site should be proposed for the National Priorities List of sites eligible for cleanup money under the federal Superfund law. If the site is ineligible for federal Superfund money, state Superfund money could be used, if available, to investigate and/or cleanup the site.

In both cases the following steps will be followed although time frames may vary depending on the course of action taken:

Action	Approximate Time
A work plan describing the investigation is drafted by a consultant and approved by the IEPA or USEPA.	1 to 2 months
A Remedial Investigation/Feasibility Study is performed.	1 to 2 years
The public comments on the Feasibility Study.	a minimum of three weeks
After the IEPA makes the final decision on the remedy (work which will treat or contain the contamination), the remedy is designed.	9 months

Action	Approximate Time
A contractor for the remedy is selected.	3 months
The remedy is constructed.	1 or more years

When will action begin?

No action can be taken until money is available either from Jennison-Wright or from federal or state Superfund money. The IEPA and Jennison-Wright must successfully negotiate an agreement before money is available from Jennison-Wright.

Before money is available from the federal or state Superfund, the site must go through an extensive evaluation process which takes time to complete. Since there is no immediate health threat, emergency money for immediate action may not be available from the state or federal government.

Does the public have input into the process?

Yes, the public will have several opportunities to comment on the process:

1. The IEPA welcomes information the public can provide about the site which might be helpful in assessing the extent and possible effects of contamination.
2. When available, a draft work plan will be placed in a local repository for public review and comment.
3. The IEPA or USEPA will provide the public a list of alternatives being considered for treatment or containment of contamination including a description of the Agency's preferred alternative. Public comment will be solicited and carefully considered before the IEPA makes a final decision on the remedy.

Where can I get more information?

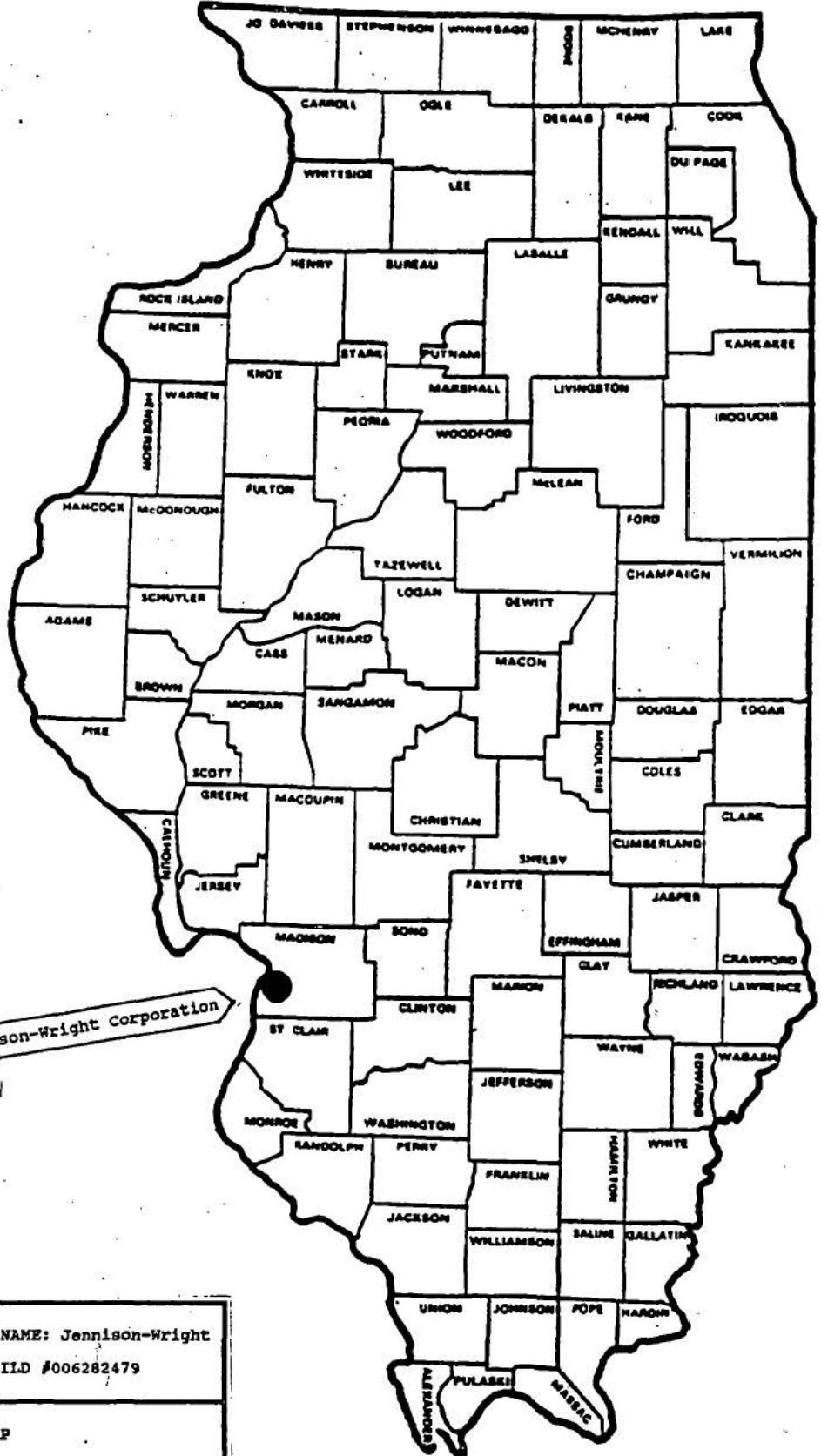
A repository of information on the site is located at the Granite City Public Library located at 2001 Delmar in Granite City. This repository includes (1) the Woodward-Clyde Consultants report of on-site sampling results, (2) the IEPA November 1988 sample results, and (3) information on the federal Superfund process. In addition, you may contact:

Virginia Wood, Community Relations Coordinator  
 Illinois Environmental Protection Agency  
 2200 Churchill Road  
 Post Office Box 19276  
 Springfield, Illinois 62794-9276  
 (217) 782-5562

or

Stephen Davis, Project Manager  
Illinois Environmental Protection Agency  
2200 Churchill Road  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
(217) 782-6760

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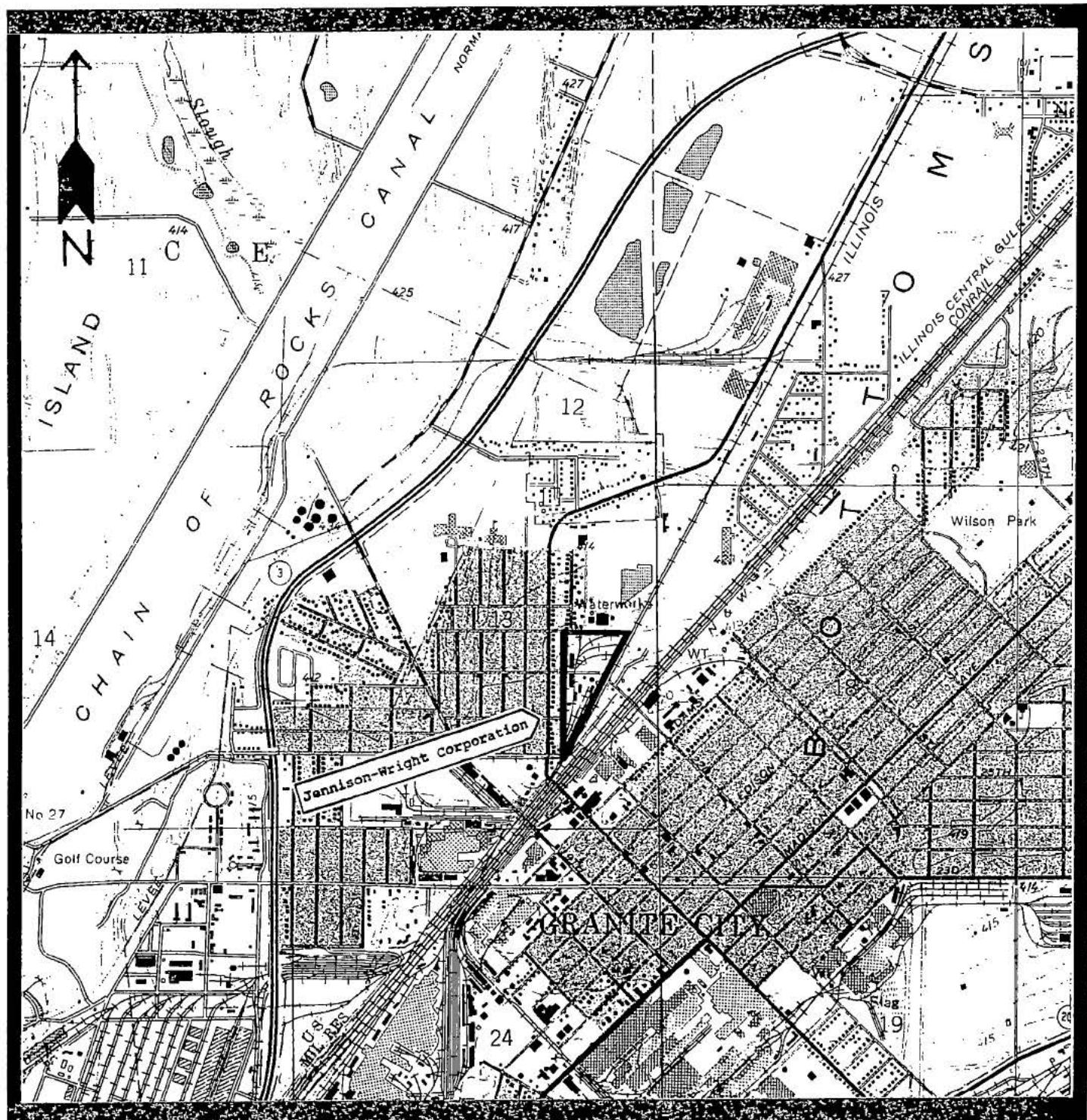


ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

SITE NAME: Jennison-Wright  
SITE ILD #006282479

ILLINOIS STATE MAP

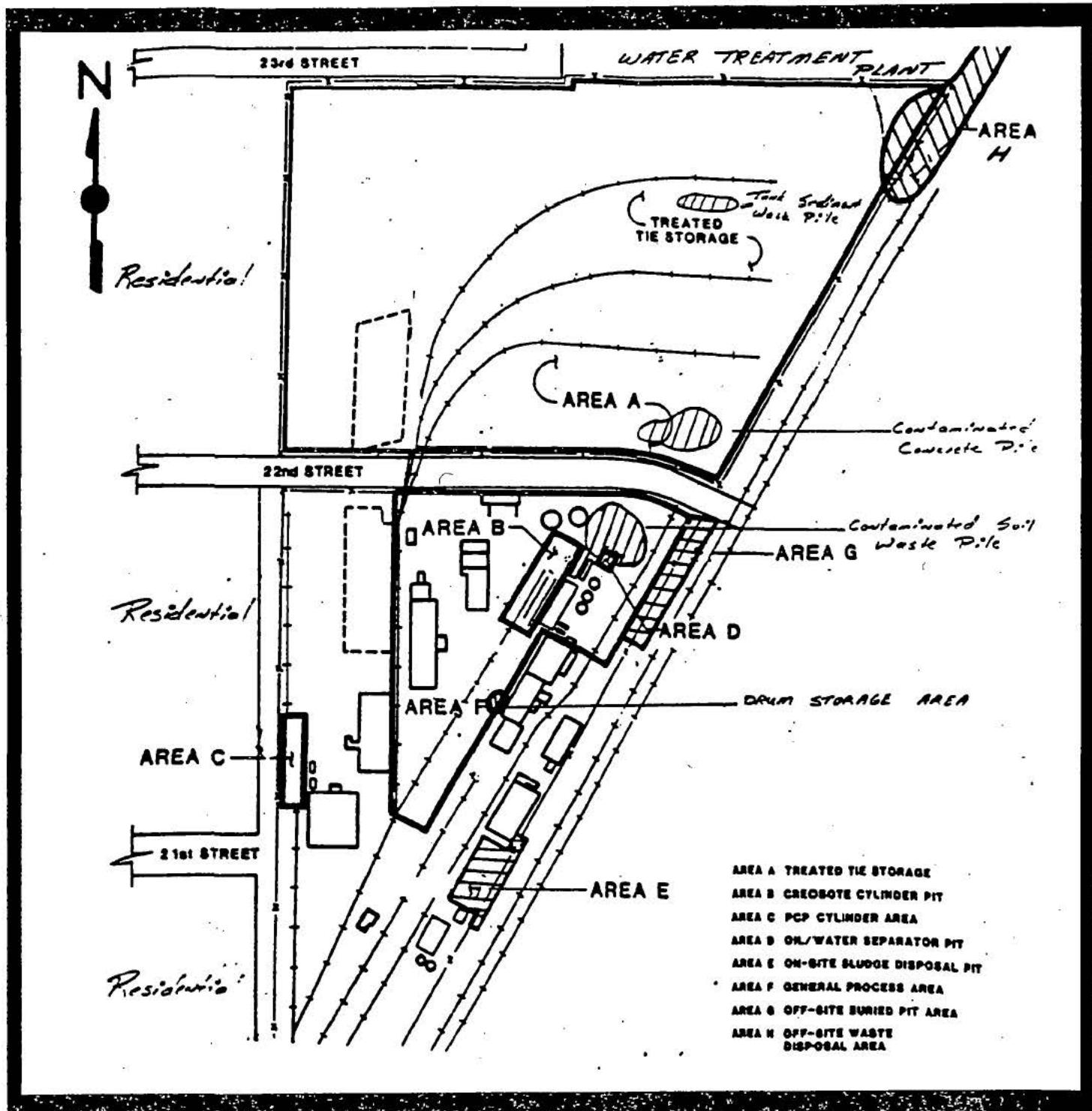
LEGEND: ● Site Location



Source: IEPA, 1991. Base Map: USGS, 1982 Granite City, IL Quadrangle.

1"=2000 Feet

## TOPOGRAPHIC MAP

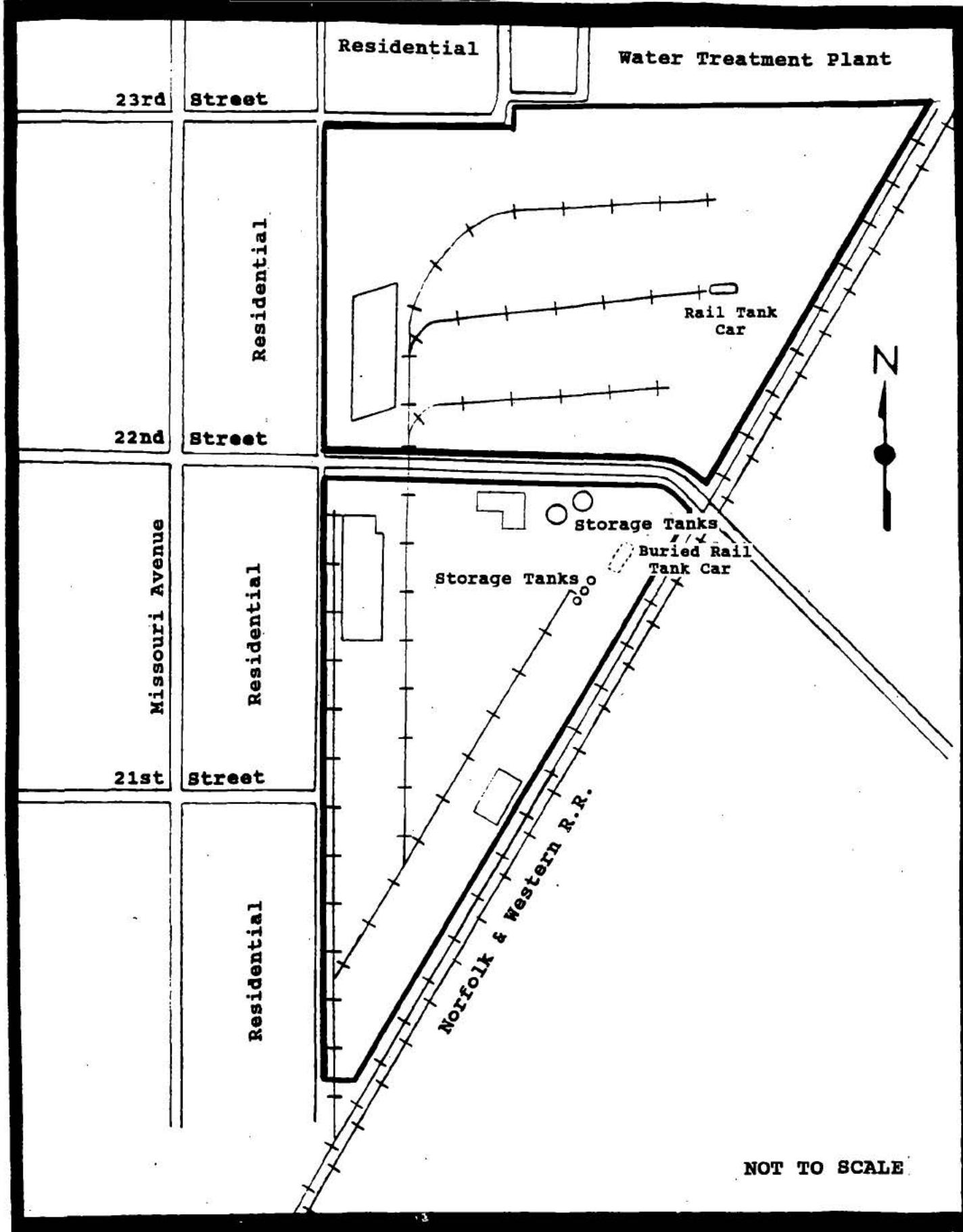


Source:IEPA,1988.

Not to scale.

FIGURE 3-1 SITE FEATURES

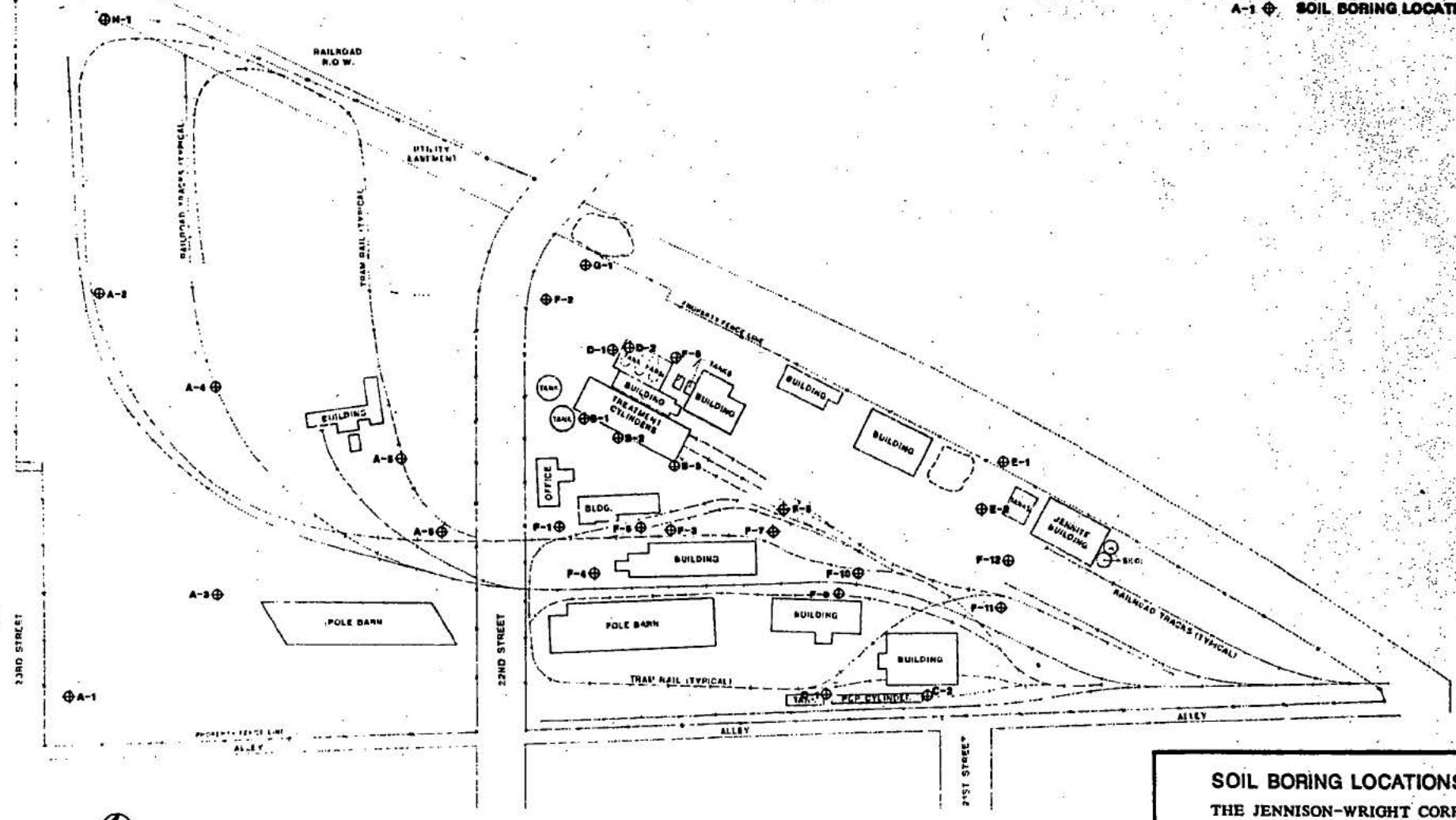
**FIGURE 2-3**  
**JENNISON-WRIGHT PROPERTY BOUNDARY**



Source: Aerial photograph, 1988, Illinois Department of Transportation

**LEGEND**

A-1 SOIL BORING LOCATION



**SOIL BORING LOCATIONS**

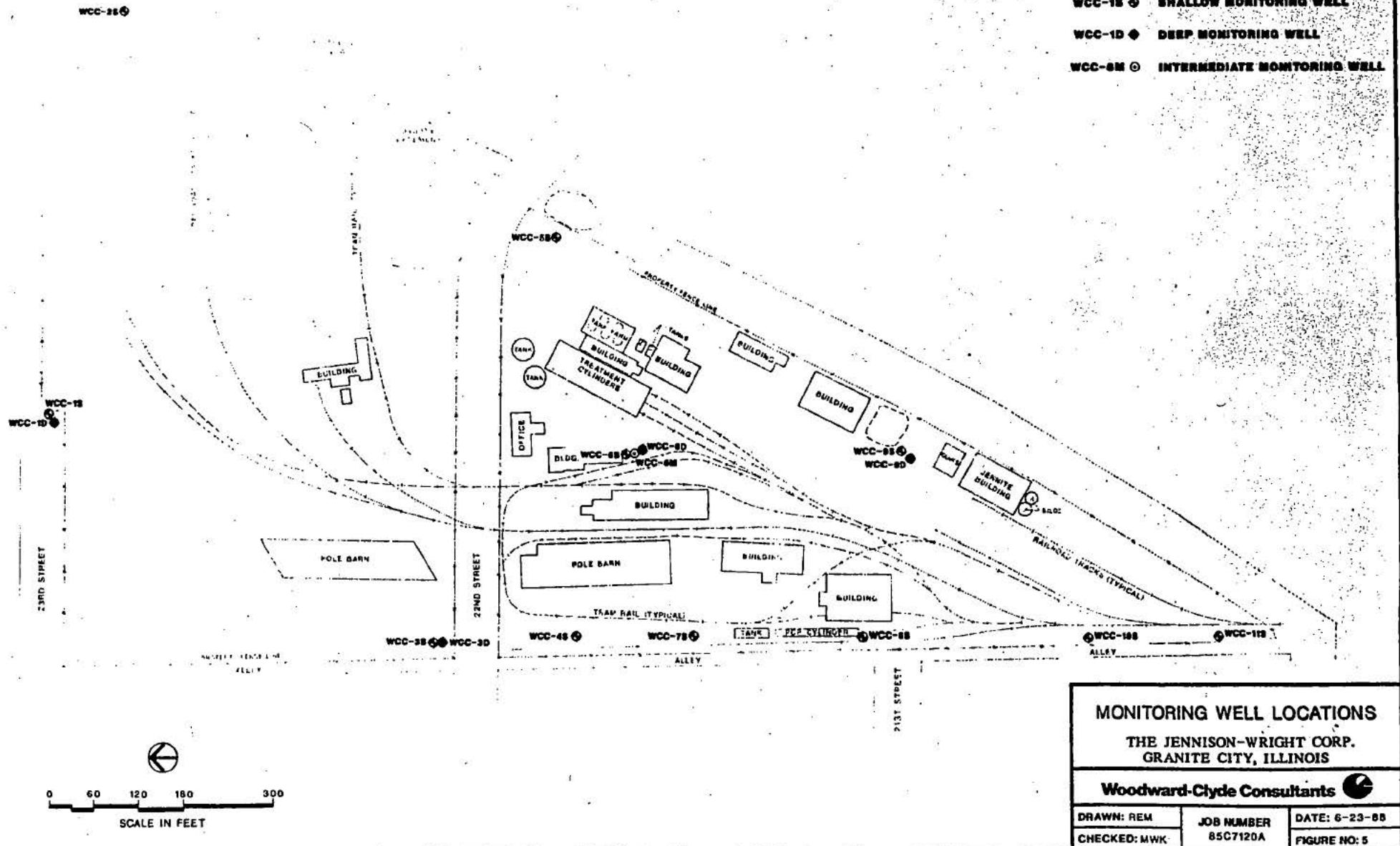
THE JENNISON-WRIGHT CORP.  
GRANITE CITY, ILLINOIS

Woodward-Clyde Consultants

DRAWN: CGS	JOB NUMBER	DATE: 8-4-68
CHECKED: MWK	BSC7120A	FIGURE NO: 4

**LEGEND**

- WCC-1S ◊ SHALLOW MONITORING WELL  
WCC-1D ◊ DEEP MONITORING WELL  
WCC-8M ◊ INTERMEDIATE MONITORING WELL



LEGEND

A-1  $\oplus$  SOIL BORING LOCATION

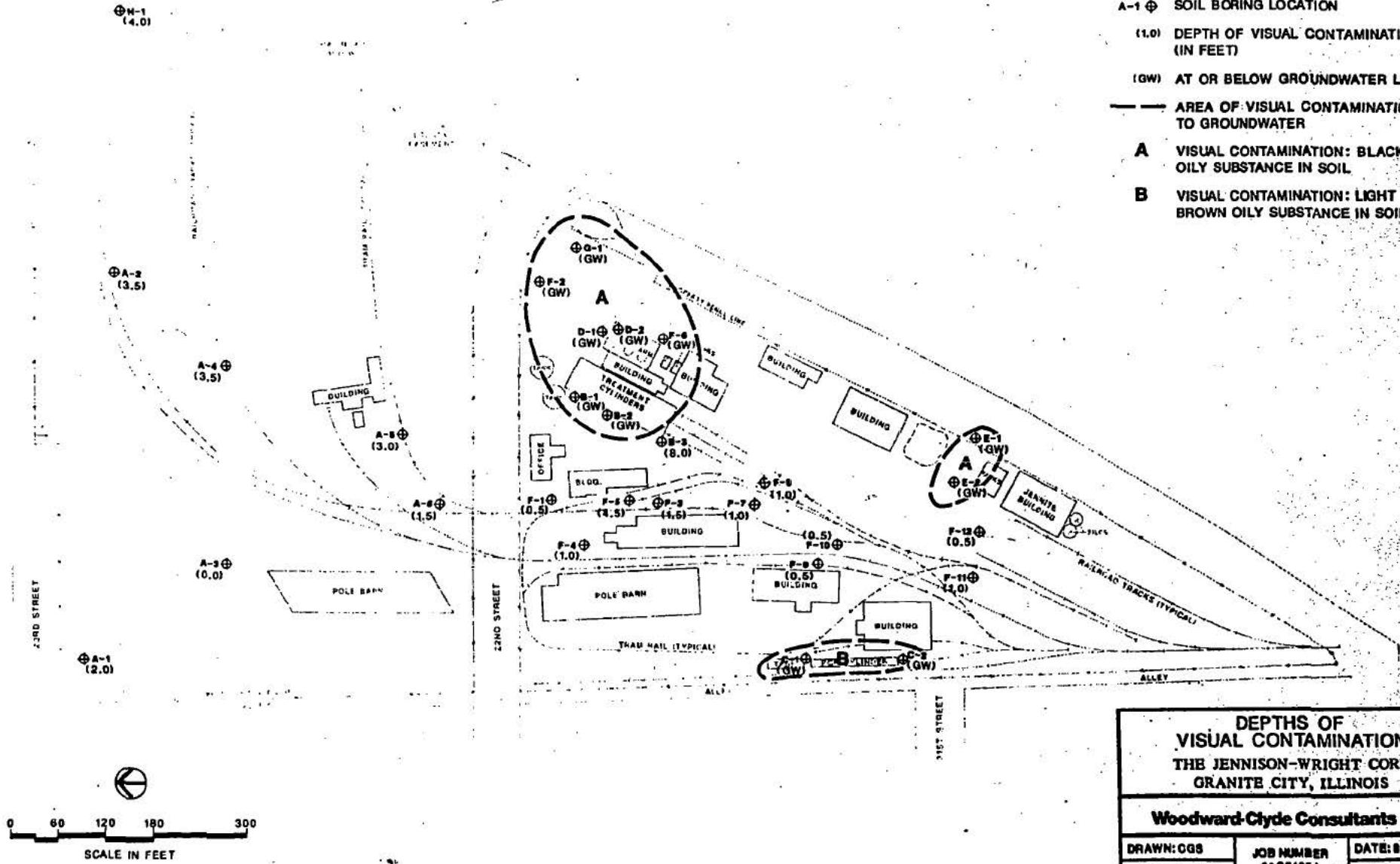
(ft.) DEPTH OF VISUAL CONTAMINATION  
(IN FEET)

(GW) AT OR BELOW GROUNDWATER LEVEL

— AREA OF VISUAL CONTAMINATION  
TO GROUNDWATER

A VISUAL CONTAMINATION: BLACK  
OILY SUBSTANCE IN SOIL

B VISUAL CONTAMINATION: LIGHT  
BROWN OILY SUBSTANCE IN SOIL



DEPTHS OF  
VISUAL CONTAMINATION  
THE JENNISON-WRIGHT CORP.  
GRANITE CITY, ILLINOIS

Woodward-Clyde Consultants

DRAWN: CGG	JOB NUMBER 65C7120A	DATE: 8-4-88
CHECKED: MWK		FIGURE NO: 8

November 29, 1988 Sampling Locations

- X101 - Soil sample from the residence at [REDACTED] Non-responsive
- X102 - Soil sample from the residence at [REDACTED] Non-responsive
- X103 - Soil sample from the residence at [REDACTED] Non-responsive
- X104 - Soil sample from the berm on Illinois American Water Company property
- X105 - Soil sample from the berm on Illinois American Water Company property
- X106 - Background soil sample from a vacant lot at Missouri Avenue and 25th Street
- X107 - Background soil sample from Triangle Park, Ohio Street and West 21st Street
- X108 - Soil sample from the Jennite pit area
- X109 - Soil sample from the 22nd Street lagoon
- X110 - Soil sample from the northeast corner of the site, taken in the railroad ditch
- G201 - Groundwater sample from a private well at [REDACTED] Non-responsive  
[REDACTED] Non-responsive
- G202 - Groundwater sample from a private well at [REDACTED] Non-responsive  
[REDACTED] Non-responsive
- W101 - Wipe sample from the maintenance shed located on the Illinois American Water Company property
- W102 - Wipe sample from a stop sign at the corner of West 21st Street and Ohio Street

TABLE 2-1  
ANALYTICAL SUMMARY  
1988 Screening Site Inspection Results

SAMPLING POINT	X101 11-29-88	X102 11-29-88	X103 11-29-88	X104 11-29-88	X105 11-29-88	X106 11-29-88	X107 11-29-88	X108 11-29-88	X109 11-29-88	X110 11-29-88	G201 11-29-88	G202 11-29-88	U101 11-29-88	U102 11-29-88
<b>VOLATILES</b>														
Methylene Chloride	3400.000 B	38.000 B	13.000 B	25.000 B	2.200 B	4.000 B	2.000 B	30.000 B	52.000 B	46.000 B	1.300 B	6.700 B	--	--
Acetone	1600.000 B	2.000 B	8.800 B	6.400 B	8.100 B	7.800 B	5.100 B	3.400 B	2.700 B	4.800 B	2.300 B	76.000 B	--	--
2-Butanone	140.000 J	1.600 J	--	2.700 J	1.600 J	2.700 J	2.200 J	--	--	3.700 J	--	--	--	--
Xylene(tolu)	--	--	--	--	--	--	--	--	--	--	1.600 J	--	--	--
(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ug/100cm)	(ug/100cm)	
<b>PESTICIDES</b>														
Heptachlor Epoxide	40.000 J	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane-sigma	450.000	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane-gamma	500.000	--	--	--	--	--	--	--	--	--	--	--	--	--
(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ug/100cm)	(ug/100cm)	
<b>SENOVOLATILES</b>														
Phenol	--	--	39.000 J	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	--	--	--	38.000 J	54.000 J	--	--	--	--	--	0.790 J	--	--	--
Benzyl Alcohol	--	--	--	--	49.000 J	--	--	--	--	--	--	0.360 J	--	--
Naphthalene	240.000 J	120.000 J	52.000 J	46.000 J	47.000 J	9.000 J	9.000 J	1300.000 J	2700.000 J	11000.000 J	--	--	--	--
2-Methylnaphthalene	200.000 J	--	62.000 J	25.000 J	7.000 J	15.000 J	490.000 J	560.000 J	--	--	--	--	--	--
Aceanaphthalene	--	--	--	--	--	--	--	--	400.000 J	--	--	--	--	--
Aceanaphthalene	--	--	--	--	--	--	--	--	2100.000 J	420.000 J	28000.000 J	--	0.180 J	--
Dibenzofuran	--	--	--	--	24.000 J	9.000 J	--	1800.000 J	2000.000 J	10000.000 J	--	0.430 J	0.310 J	
Fluorene	--	--	--	--	10.000 J	6.000 J	--	4200.000 J	200.000 J	--	--	0.180 J	--	--
Pentachlorophenol	--	2600.000 J	--	--	11.000 J	--	--	--	28000.000 J	--	--	--	--	--
Phenanthrene	1000.000 B	1100.000 B	410.000 B	110.000 B	110.000 B	130.000 B	180.000 B	28000.000 B	12000.000 B	16000.000 B	--	--	--	2.100
Anthracene	--	560.000 J	--	24.000 J	21.000 J	31.000 J	26.000 J	35000.000 J	2400.000 J	41000.000 J	--	--	--	--
Diethylphthalate	--	--	--	35.000 J	27.000 J	21.000 J	24.000 J	--	--	16000.000 J	--	0.210 J	--	--
Di-n-butylphthalate	230.000 B	250.000 B	70.000 B	170.000 B	160.000 B	87.000 B	89.000 B	210.000 B	150.000 B	--	--	0.250 J	0.290 J	
Fluoranthene	1400.000 B	1400.000 B	940.000 B	130.000 B	200.000 B	150.000 B	170.000 B	44000.000 B	24000.000 B	190000.000 B	--	--	--	3.000
Pyrene	1400.000 B	1700.000 B	850.000 B	116.000 B	150.000 B	130.000 B	160.000 B	35000.000 B	25000.000 B	150000.000 B	--	2.300	--	--
Butylbenzylphthalate	--	760.000 J	--	--	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene	--	1700.000 J	670.000 J	230.000 J	90.000 J	150.000 J	--	14000.000 J	14000.000 J	53000.000 J	--	--	--	--
Chrysene	--	3100.000 J	750.000 J	--	240.000 J	--	--	16000.000 J	28000.000 J	58000.000 J	--	1.700	--	--
bis(2-Ethylhexyl)phthalate	570.000 J	--	240.000 J	--	1200.000	6600.000	--	27000.000	--	--	--	--	--	--
Benz(b)fluoranthene	820.000 J	--	480.000 J	--	160.000 J	42.000 J	--	7000.000 J	21000.000 J	190000.000 J	--	--	--	--
Benz(c)fluoranthene	--	780.000 J	--	--	80.000 J	65.000 J	--	--	16000.000	--	--	--	--	--
Benz(a)pyrene	310.000 J	--	470.000 J	--	--	--	--	8000.000 J	14000.000 J	140000.000 J	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	21000.000	--	--	--	--	--
(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ug/100cm)	(ug/100cm)	
<b>INORGANICS</b>														
Aluminum	10491.000	13799.000	9487.000	9719.000	8430.000	6877.000	6883.000	5839.000	3854.000	3668.000	65.000 B	--	H	H
Antimony	2.400 B	6.800 B	3.400 B	--	--	--	--	--	--	--	--	--	--	--
Arsenic	22.900	45.500	21.200	7.300 B	7.700 B	5.500 B	9.300 B	6.000 B	7.980 B	11.800	3.000 B	2.000 B	O	O
Barium	400.000	921.000	552.000	170.600 B	171.000 B	130.000 B	153.000 B	156.000 B	176.000 B	108.000 B	81.300 B	73.000 B	--	--
Beryllium	1.490 B	1.200 B	1.340 B	0.850 B	0.790 B	0.740 B	0.800 B	0.780 B	0.390 B	0.720 B	0.590 B	0.500 B	--	--
Cadmium	5.740	6.600	3.890 B	2.540 B	7.200	--	--	--	--	2.400 B	3.200 B	1.700 B	S	S
Calcium	13280.000	23570.000	7717.000	5086.000	5932.000	6451.000	5600.000	20907.000	13487.000	26685.000	143000.000	229000.000	--	--
Chromium	36.200	80.800	28.300	19.500	18.900	13.200	17.200	26.600	18.000	38.300	8.000 B	13.000	A	A
Cobalt	11.500 B	8.700 B	8.000 B	6.800 B	6.100 B	4.180 B	4.960 B	5.300 B	4.400 B	--	12.000 B	11.500 B	--	--
Copper	120.000	271.000	87.200	29.800	29.800	17.100 B	25.500	12.900	25.800	165.000	3.000 B	5.400 B	H	H
Iron	33640.000	41900.000	29300.000	19190.000	17142.000	12814.000	15105.000	16355.000	19237.000	11573.000	53.000 B	--	--	--
Lead	840.000	2340.000	632.000	134.000	158.000	131.000	299.000	27.800	69.400	271.000	10.000	11.000	P	P
Magnesium	3499.000 B	3706.000 B	1874.000 B	2495.000 B	2607.000 B	2443.000 B	2231.000 B	5950.000	3332.000 B	6070.000	31600.000	59900.000	--	--
Manganese	717.000	929.000	569.000	529.000	521.000	313.000	450.000	621.000	786.000	674.000	558.000	1120.000	L	L
Mercury	0.450	0.310	0.340	--	--	--	--	--	0.510	--	--	0.200	--	--
Nickel	26.900 B	29.700 B	22.800 B	18.900 B	16.800 B	11.500 B	133.000	16.900 B	14.400 B	12.900 B	32.000 B	28.900 B	E	E
Potassium	2120.000 B	1657.000 B	1500.000 B	1741.000 B	1584.000 B	1268.000 B	1419.000 B	814.000 B	935.000 B	395.000 B	4438.000 B	8790.000	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	10.000	3.000 B	--	--
Silver	--	--	--	--	--	--	--	--	--	--	6.700 B	--	--	--
Sodium	276.000 B	237.000 B	127.000 B	2.900 B	--	--	--	--	--	--	31700.000	36600.000	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	1.270	--	--	--
Titanium	37.900 B	42.200 B	29.900 B	28.900 B	27.400 B	20.000 B	22.600 B	42.900 B	26.100 B	34.700 B	5.000 B	8.000 B	--	--
Zinc	653.000	1545.000	780.000	233.000	243.700	159.900	236.000	68.500	194.000	419.000	315.000	21.000	--	--
Cyanide	1.300 B	1.400 B	0.500 B	0.300 B	0.400 B	0.300 B	0.300 B	0.100 B	0.200 B	2.000 B	7.000 B	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	300000.000	330000.000	--	--	--
(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	

Jennison-Wright Corporation  
1D006282479

TABLE 2-1  
ANALYTICAL SUMMARY  
1988 Screening Site Inspection Results

SAMPLING POINT	X101 11-29-88	X102 11-29-88	X103 11-29-88	X104 11-29-88	X105 11-29-88	X106 11-29-88	X107 11-29-88	X108 11-29-88	X109 11-29-88	X110 11-29-88	G201 11-29-88	G202 11-29-88	W101 11-29-88	W102 11-29-88
<b>SPECIAL ANALYSIS</b>														
2378-TcDD	--	--	--	--	--	--	--	--	7.351	--	--	--	--	--
12378-PeCDD	--	0.099	--	--	--	--	--	--	78.225	0.105	--	--	--	--
123678-HxCDD	--	0.331	--	--	--	--	--	--	523.187	--	--	--	--	--
12367-HxCDD	69.655	2.279	9.517	12.833	10.932	--	--	41.277	2104.422	13.340	--	--	--	--
123789-HxCDD	--	0.790	7.550	--	8.811	--	--	--	1932.908	4.923	--	--	--	--
1234678-HpCDD	3803.006	197.765	407.301	684.737	574.798	79.217	61.052	5814.239	201585.693	1253.422	--	--	0.340	0.346
OCDD	53809.151	2125.451	5558.448	11022.075	9034.390	1066.862	708.331	101074.080	760936.175	6744.598	--	--	4.651	1.671
2378-TCDF	27.930	0.076	11.014	5.444	--	--	--	--	--	0.057	--	--	--	--
12378-PeCDF	--	0.041	3.799	--	--	--	--	--	--	0.298	--	--	--	--
23478-PeCDF	--	--	2.672	--	--	--	--	--	--	0.371	--	--	--	--
123478-HxCDF	--	0.379	8.937	8.481	6.185	--	3.705	--	117.064	3.986	--	--	--	--
123678-HxCDF	--	--	3.717	--	--	--	--	--	--	0.493	--	--	--	--
234678-HxCDF	--	--	4.955	--	--	--	--	--	42.005	1.302	--	--	--	--
1234678-HpCDF	489.392	13.779	--	86.182	--	18.014	--	244.915	5127.828	122.964	--	--	--	0.078
1234789-HpCDF	--	--	--	--	--	--	--	--	327.047	7.731	--	--	--	--
OCDF	2745.572	92.634	249.599	402.648	263.358	--	38.474	29041.420	34922.855	--	--	--	--	--
Total TcDD	20.296	0.202	19.509	--	5.382	3.606	7.354	--	79.463	0.103	--	--	--	--
Total PeCDD	--	0.407	3.878	9.095	7.604	--	4.895	--	1837.862	1.590	--	--	--	--
Total HxCDD	564.962	10.207	95.583	127.058	119.046	--	18.725	414.598	41966.440	129.629	--	--	--	--
Total HpCDD	10135.083	304.782	998.169	2066.205	1768.459	207.476	147.267	19302.769	537156.270	2943.278	--	--	0.740	0.556
Total TcDF	105.819	0.382	50.212	18.081	4.441	--	11.330	--	--	0.338	--	--	--	--
Total PeCDF	165.456	1.318	46.064	19.586	9.863	--	15.439	--	74.027	7.289	--	--	--	--
Total HxCDF	548.486	9.917	53.984	121.500	66.990	18.975	32.224	182.427	4011.346	87.182	--	--	--	--
Total HpCDF	1937.911	81.219	136.563	330.970	182.915	55.592	--	1484.578	29153.654	647.731	--	--	--	--
	(ppt)	(ng/cm <sup>3</sup> )	(ng/cm <sup>3</sup> )											

Table 3-1  
Soil Sample Descriptions

<u>Sample</u>	<u>Depth</u>	<u>Appearance</u>	<u>Location</u>
X101	0.5 - 5.5"	Dark brown to black fine grained	21 feet 6 inches south and 4 feet 10 inches west from the southeast corner of the house at [REDACTED] Non-responsive .
X102	0.5 - 6.0"	Dark to light brown fine grained, with some sand	59 feet 5 inches east from the northeast corner of the house at [REDACTED] Non-responsive .
X103	0.5 - 6.0"	Dark brown to black fine grained	80 feet 2 inches east and 2 feet south from the southeast corner of the house [REDACTED] Non-responsive Non-responsive .
X104	0.5 - 6.0"	Brown to light brown fine grained	55 feet 11 inches east from the southeast corner of the house at [REDACTED] Non-responsive .
X105	0.5 - 6.0"	Brown to black fine grained, some fill material	57 feet 3 inches east and 2 feet 2 inches south from the southeast corner of the house at [REDACTED] Non-responsive .
X106	0.5 - 6.0"	Brown to black with some clay and sand grains	53 feet 3 inches east and 6 feet 8 inches north from the southeast corner of the house at [REDACTED] Non-responsive .
X107	0.5 - 5.5"	Brown to black mostly fill material	44 feet 10 inches east and 16 feet 5 inches north from the southeast corner of the house at [REDACTED] Non-responsive .
X108	0.5 - 5.5"	Brown to black fine grained with some sand grains	40 feet 3 inches east and 6 feet 10 inches south from the northeast corner of the house at [REDACTED] Non-responsive .
X109	0.5 - 6.0"	Brown to black fine grained	41 feet 3 inches east and 2 feet 6 inches north from the southeast corner of the house at [REDACTED] Non-responsive .
X110	0.5 - 6.0"	Brown to black fine grained with some sand grains	21 feet 8 inches east and 7 feet 10 inches south from the northeast corner of the house at [REDACTED] Non-responsive .

Table 3-1 (cont)  
Soil Sample Descriptions

<u>Sample</u>	<u>Depth</u>	<u>Appearance</u>	<u>Location</u>
X111	0.5 - 6.0"	Brown to black fine grained with some sand grains	This sample was a duplicate sample taken at the same location as X110 [REDACTED] Non-responsive Street.
X112	0.5 - 4.5"	Dark brown to black fine grained	96 feet 2 inches northeast of Rock Road and 44 feet 3 inches southeast of Division Street.
X113	0.5 - 6.0"	Dark brown to black sludge	Collected from inside the largest tank on the south side of the facility.
X114	Surface	Brown to light brown fine grained, some fill material	Approximately 15 feet west from the east fence and 100 feet south of the two silos on the south side of the facility.
X115	0.0 - 3.0"	Black to dark brown material	20 feet east from the west fence and 40 feet north of 21st Street on the south side of the facility
X116	About 8' below top of tank car	Black sludge	Collected from the buried tank car located just east of the the two above ground tanks, south of 22nd Street.
X117	Bottom of tank	Dark brown liquid	Collected from the smaller of the two tanks just south of 22nd Street.
X118	About 8" below top of tank car	Black to dark brown sludge	Collected from the above ground tank car on the north side of the facility.

TABLE 4-1

ANALYTICAL SUMMARY

SOIL SAMPLES

SAMPLING POINT	X101 07-30-91	X102 07-30-91	X103 07-30-91	X104 07-30-91	X105 07-30-91	X106 07-30-91	X107 07-30-91	X108 07-30-91	X109 07-30-91
<b>VOLATILES</b>									
Methylene Chloride	11.00	13.00 B	13.00	6.00	7.00	--	8.00 B	5.00 JB	4.00 J
Acetone	--	51.00	6.00 J	--	6.00 J	29.00	--	23.00	20.00 B
1,1,1-Trichloroethane	--	--	4.00 J	--	--	--	--	--	--
Trichloroethene	2.00 JB	--	3.00 JB	2.00 JB	3.00 JB	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--
Xylene(total)	--	--	--	--	--	--	--	--	--
	(ppb)								
<b>SEMI-VOLATILES</b>									
Phenol	--	--	--	--	--	--	--	--	--
2-methylphenol	--	--	--	--	--	--	--	--	--
4-methylphenol	--	--	--	--	--	--	--	--	--
2,4-dimethylphenol	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	1400.00	160.00 J	--	--	--	--	120.00 J
2-Methylnaphthalene	--	--	2000.00	130.00 J	--	--	--	150.00 J	--
Acenaphthylene	--	--	110.00 J	--	94.00 J	--	61.00 J	--	110.00 J
Acenaphthene	--	--	--	96.00 J	--	--	--	--	100.00 J
Dibenzofuran	--	--	78.00 J	110.00 J	--	--	--	84.00 J	97.00 J
Fluorene	--	180.00 J	--	--	--	--	--	83.00 J	130.00 J
Pentachlorophenol	--	--	--	--	--	--	--	--	--
Phenanthrene	610.00	2300.00	390.00 J	920.00	590.00	110.00 J	290.00 J	1400.00	1500.00
Anthracene	120.00 J	520.00	93.00 J	190.00 J	160.00 J	--	66.00 J	230.00 J	260.00 J
Di-n-butylphthalate	--	--	--	100.00 J	--	--	--	--	--
Fluoranthene	1200.00	2900.00	380.00 J	1200.00	1000.00	230.00 J	450.00	1900.00	1700.00
Pyrene	850.00	2200.00	410.00 J	810.00	940.00	210.00 J	380.00	1700.00	1800.00
Butylbenzylphthalate	650.00	--	--	--	--	--	--	--	--
Benzo(a)anthracene	510.00	1500.00	170.00 J	450.00	490.00	120.00 J	160.00 J	900.00	930.00
Chrysene	560.00	1600.00	280.00 J	490.00	680.00	160.00 J	290.00 J	940.00	1000.00
bis(2-Ethylhexyl)phthalate	1100.00	--	110.00 J	220.00 J	240.00 J	130.00 J	170.00 J	220.00 J	320.00 J
Benzo(b)fluoranthene	720.00	2200.00	360.00 J	670.00	870.00	220.00 J	410.00	1100.00	1200.00
Benzo(k)fluoranthene	560.00	1700.00	290.00 J	490.00	620.00	140.00 J	330.00 J	1100.00	1000.00
Benzo(a)pyrene	590.00	1400.00	260.00 J	480.00	590.00	140.00 J	230.00 J	970.00	1000.00
Indeno(1,2,3-cd)pyrene	330.00 J	550.00	220.00 J	210.00 J	270.00 J	--	140.00 J	350.00 J	310.00 J
Benzo(g,h,i)perylene	280.00 J	460.00	210.00 J	200.00 J	260.00 J	--	120.00 J	320.00 J	310.00 J
	(ppb)								
<b>INORGANICS</b>									
Aluminum	9500.00	11000.00	7100.00	7600.00	15000.00	15000.00	11000.00	9600.00	8000.00
Arsenic	11.00	12.00	21.00	7.20	11.00	9.60	7.40	12.00	10.00
Barium	220.00	250.00	230.00	130.00	260.00	230.00	210.00	210.00	160.00
Beryllium	5.60	6.10	53.00	4.70	7.90	6.80	2.50	1.90	1.30
Cadmium	1.90	1.60	--	1.30	2.20	1.10	3.50	2.10	2.30
Calcium	8800.00	5900.00	4200.00	38000.00	9800.00	5700.00	32000.00	4200.00	4400.00
Chromium	12.00	14.00	--	23.00	27.00	14.00	27.00	13.00	11.00
Cobalt	11.00	[10.00]	23.00	11.00	16.00	12.00	9.60	[9.40]	[7.40]
Copper	59.00	38.00	37.00	24.00	42.00	29.00	47.00	38.00	23.00
Iron	23000.00	19000.00	180000.00	16000.00	25000.00	21000.00	19000.00	21000.00	12000.00
Lead	460.00	360.00	440.00	160.00	400.00	170.00	460.00	290.00	440.00
Magnesium	2700.00	3500.00	1600.00	19000.00	4200.00	3800.00	3400.00	2500.00	2300.00
Manganese	580.00	420.00	1100.00	710.00	1000.00	560.00	1100.00	440.00	350.00
Mercury	0.11	0.16	0.38	--	0.15	0.08	0.09	0.11	0.08
Nickel	22.00	23.00	22.00	18.00	38.00	25.00	20.00	22.00	17.00
Potassium	2200.00	2200.00	1700.00	1200.00	2800.00	2700.00	1800.00	2000.00	1600.00
Selenium	--	--	--	--	--	--	1.50	--	--
Silver	--	--	--	--	--	--	--	--	--
Sodium	[980.00]	[1100.00]	--	--	1300.00	1300.00	1100.00	--	--
Thallium	--	--	--	--	--	--	--	--	--
Vanadium	25.00	27.00	[11.00]	28.00	37.00	27.00	25.00	26.00	19.00
Zinc	410.00	400.00	770.00	150.00	600.00	260.00	470.00	300.00	300.00
	(ppm)								
<b>TENTATIVELY IDENTIFIED COMPOUNDS</b>									
1,1,2-trifluoroethane	8.00 J	21.00 J	11.00 J	5.00 J	9.00 J	6.00 J	12.00 J	12.00 J	79.00 J
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--
Hexadecanoic acid	260.00 J	--	--	--	--	200.00 J	--	560.00 J	510.00 J
3-methyl-phenanthrene	--	270.00 J	--	--	--	--	--	--	--
Benzo[b]naphtho[1,2-d]-thiopene	--	310.00 J	--	--	--	--	--	--	--
Eicosane	--	--	--	210.00 J	--	--	--	--	--
Hexadecane	--	--	--	--	--	--	--	230.00 J	--
9,10-Anthracedione	--	--	--	--	--	--	--	--	600.00 J
2-ethenyl-naphthalene	--	--	--	--	--	--	--	--	--
4-methyl-dibenzofuran	--	--	--	--	--	--	--	--	--
Dibenzothiopene	--	--	--	--	--	--	--	--	--
9H-Carbazole	--	--	--	--	--	--	--	--	--
Decahydro-2-methyl-naphthalene	--	--	--	--	--	--	--	--	--
2,6,10,15-tetramethyl-heptadecane	--	--	--	--	--	--	--	--	--
Docosane	--	--	--	--	--	--	--	--	--
Isoquinoline	--	--	--	--	--	--	--	--	--
1,2-Benzenedicarboxylic acid	--	--	--	--	--	--	--	--	--
	(ppb)								

TABLE 4-1  
ANALYTICAL SUMMARY

## SOIL SAMPLES

SAMPLING POINT	X110 07-30-91	X111 07-30-91	X112 07-30-91	X113 07-31-91	X114 07-31-91	X115 07-31-91	X116 07-31-91	X117 07-31-91	X118 07-31-91
<b>VOLATILES</b>									
Methylene Chloride	8.00 B	11.00 B	37.00 B	51000.00 B	88.00	8100.00 JB	140.00 B	25000.00 JB	22000.00 B
Acetone	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	150000.00	--	--	120.00	180000.00	22000.00
Toluene	--	--	--	180000.00	--	93000.00	470.00	360000.00	40000.00
Ethylbenzene	--	--	--	92000.00	--	--	280.00	340000.00	34000.00
Xylene(total)	--	--	--	280000.00	--	--	2200.00	600000.00	110000.00
	(ppb)								
<b>SEMIVOLATILES</b>									
Phenol	--	--	--	3200000.00 J	--	--	--	920000.00	--
2-methylphenol	--	--	--	940000.00 J	--	--	--	640000.00	--
4-methylphenol	--	--	--	--	--	--	--	1900000.00	--
2,4-Dimethylphenol	--	--	--	--	--	--	--	1900000.00	--
Naphthalene	--	--	--	110000000.00 D	110000.00 J	--	170000.00	89000000.00 D	280000000.00
2-Methylnaphthalene	--	--	--	2000000.00	--	--	220000.00	1400000.00 JD	42000000.00 J
Acenaphthylene	--	--	--	2000000.00 J	730000.00 J	--	--	1400000.00	--
Acenaphthene	--	--	--	3100000.00	130000.00 J	--	190000.00	23000000.00 D	70000000.00
Dibenzofuran	--	--	--	2300000.00	--	--	110000.00	14000000.00 JD	47000000.00 J
Fluorene	--	--	--	3500000.00	110000.00 J	--	190000.00	19000000.00 JD	60000000.00 J
Pentachlorophenol	--	--	--	--	--	2800000.00	1900000.00 J	--	--
Phenanthrene	1200.00	1100.00	--	9700000.00 D	980000.00	--	640000.00	61000000.00 D	200000000.00
Anthracene	--	240.00 J	--	8500000.00 D	400000.00 J	--	190000.00	--	25000000.00 J
Di-n-butylphthalate	--	--	--	--	--	--	--	--	--
Fluoranthene	1600.00	1400.00	--	4600000.00	1900000.00	--	1200000.00	28000000.00 D	98000000.00
Pyrene	1400.00	1200.00	--	3100000.00	1500000.00	--	1100000.00	21000000.00 D	63000000.00
Butylbenzylphthalate	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	740.00 J	680.00 J	--	860000.00	890000.00	--	240000.00	4900000.00 JD	15000000.00 J
Chrysene	1200.00	1100.00	--	1100000.00	1400000.00	--	440000.00	4600000.00 JD	18000000.00 J
bis(2-Ethylhexyl)phthalate	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	810.00	850.00	--	3200000.00 J	1100000.00	--	280000.00	1400000.00 JD	--
Benzo(k)fluoranthene	670.00 J	790.00	--	3800000.00 J	1000000.00	--	170000.00	1700000.00	--
Benzo(a)pyrene	640.00 J	590.00 J	--	3900000.00	1000000.00	--	120000.00	2900000.00	--
Indeno[1,2,3-cd]pyrene	540.00 J	530.00 J	--	1800000.00 J	860000.00	--	130000.00	560000.00	--
Benzo(g,h,i)perylene	450.00 J	660.00 J	--	1700000.00 J	800000.00	--	94000.00	440000.00	--
	(ppb)								
<b>INORGANICS</b>									
Aluminum	15000.00	14000.00	21000.00	1200.00	25000.00	9500.00	4700.00	52.00	670.00
Arsenic	13.00	11.00	7.80	11.00	18.00	6.20	2.50	1.00	4.70
Barium	270.00	280.00	230.00	[17.00]	120.00	290.00	110.00	[1.70]	[12.00]
Beryllium	2.00	2.00	1.70	--	2.20	2.10	0.52	--	--
Cadmium	3.20	3.30	0.84	5.00	3.10	1.40	--	--	--
Calcium	22000.00	24000.00	5300.00	2100.00	38000.00	32000.00	28000.00	[120.00]	[700.00]
Chromium	17.00	16.00	7.00	10.00	72.00	25.00	13.00	2.90	6.50
Cobalt	13.00	13.00	14.00	--	14.00	8.40	5.50	--	--
Copper	42.00	44.00	25.00	16.00	78.00	61.00	23.00	11.00	--
Iron	24000.00	25000.00	24000.00	2400.00	37000.00	25000.00	8500.00	110.00	2000.00
Lead	460.00	470.00	120.00	290.00	530.00	190.00	37.00	2.10	8.90
Magnesium	9200.00	9500.00	4800.00	[620.00]	4200.00	5000.00	7900.00	[29.00]	[130.00]
Manganese	630.00	620.00	720.00	67.00	930.00	840.00	670.00	4.60	29.00
Mercury	0.12	0.10	--	3.30	0.30	0.09	0.21	--	0.23
Nickel	28.00	28.00	27.00	--	26.00	46.00	9.00	--	--
Potassium	2800.00	2900.00	3700.00	[770.00]	1600.00	710.00	820.00	--	--
Selenium	--	--	--	2.00	1.90	--	--	--	--
Silver	--	--	--	[3.50]	--	--	--	--	--
Sodium	[340.00]	--	[120.00]	[420.00]	[630.00]	[480.00]	540.00	[92.00]	[750.00]
Thallium	--	--	--	--	2.80	--	--	--	--
Vanadium	29.00	30.00	30.00	[4.70]	58.00	23.00	18.00	--	--
Zinc	600.00	630.00	170.00	340.00	590.00	4000.00	110.00	13.00	66.00
	(ppm)								
<b>TENTATIVELY IDENTIFIED COMPOUNDS</b>									
1,2,2-trifluoroethane	15.00 J	12.00 J	16.00 J	19000.00 J	37.00 J	14000.00 J	--	160000.00 J	--
Trichlorofluoromethane	15.00 J	--	--	--	--	--	--	--	40000.00 J
Hexadecanoic acid	--	--	--	--	--	--	--	--	--
3-methyl-phenanthrene	--	--	--	--	--	--	--	--	--
Benzo[b]naphtho[1,2-d]-thiopene	--	--	--	--	--	--	--	--	--
Eicosane	--	--	--	--	--	--	--	--	--
Hexadecane	--	--	--	--	--	--	--	--	--
9,10-Anthracenedione	--	--	--	--	--	--	--	--	--
2-ethyl-naphthalene	--	--	--	5400000.00 J	--	--	--	--	--
4-methyl-dibenzo-furan	--	--	--	2200000.00 J	--	--	--	--	--
Dibenzo-thiopene	--	--	--	6500000.00 J	--	--	--	--	--
9H-Carbazole	--	--	--	38000000.00 J	--	--	--	--	--
Decahydro-2-methyl-naphthalene	--	--	--	--	1500000.00 J	--	--	--	--
2,6,10,15-tetramethyl-heptadecane	--	--	--	--	1400000.00 J	--	--	--	--
Docosane	--	--	--	--	1200000.00 J	--	--	--	--
Isoquinoline	--	--	--	--	--	--	--	140000.00 J	--
1,2-Benzenedicarboxylic acid	--	--	--	--	--	--	--	96000.00 J	--
	(ppb)								

**Background**

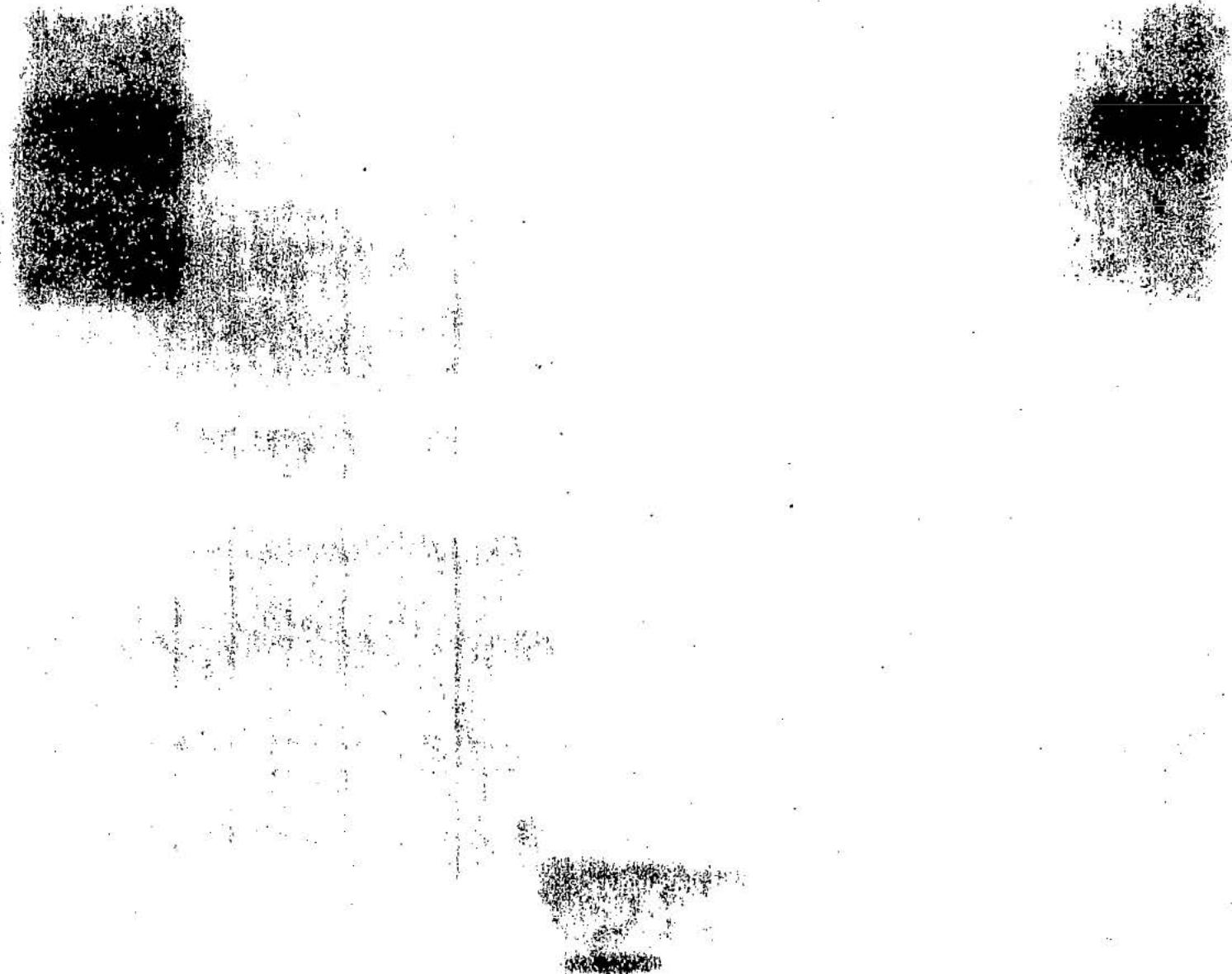


TABLE 9C  
BACKGROUND  
METALS ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	GB-NORTH- 0.1-0.5	GB-SOUTH- 0.1-0.5	GB-EAST- 0.1-0.5	GB-WEST- 0.1-0.5	GB-01-X	Background Mean
Antimony	10	11.5	4.97 J	9.8	6.78 J	10
Arsenic	7.33 J	19.8	8.68 J	12	7.55 J	16
Beryllium	12.1	11.5	8.86	12	11.5	11
Cadmium	1.33	1.59	14.6	3.53	1.76	5
Chromium	18.3	17.1	20.1	22.2	17.4	19
Copper	25.7	64	38.3	61.7	25.5	43
Lead	195	574	256	546	197	354
Mercury	0.053	0.3	0.18	0.39	0.054	0.2
Nickel	19.9	13.8	15.6	17.8	20.4	18
Selenium	0.16 J	0.34 J	---	0.14 J	0.12 J	
Silver	---	0.86	---	---	---	0.86
Thallium	---	1.3 J	---	---	---	
Zinc	219	260	415	195	218	261

Concentrations given in mg/kg (ppm)

--- - Compound not detected

J - Reported value is less than the detection limit.

X - Indicates duplicate sample.

Last two digits in sample number indicate sample depth.

# Woodward-Clyde Consultants

TABLE 9A  
BACKGROUND  
SEMI-VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	GB-NORTH- 0.1-0.5	GB-SOUTH- 0.1-0.5	GB-EAST- 0.1-0.5	GB-WEST- 0.1-0.5	GB-01-X	Background Mean
Phenol	---	---	18 J	---	---	
1,4-Dichlorobenzene	---	6.8 J	---	---	---	
bis(2-Chloroisopropyl)Ether	---	---	---	0.84 J	---	
4-Methylphenol	---	---	10 J	---	---	
N-Nitroso-Di-n-Propylamine	---	5.8 J	7.9 J	21 J	---	
Hexachloroethane	---	39 J	---	13 J	---	
Nitrobenzene	---	9.1 J	---	---	---	
Isophorone	---	---	---	4.2 J	---	
2,4-Dimethylphenol	---	---	---	6.6 J	---	
Benzoic Acid	---	---	37 J	120 J	---	
bis(2-Chloroethoxy)Methane	---	13 J	---	7.2 J	---	
Naphthalene	62 J	520	120 J	410	---	465
4-Chloraniline	---	6.6 J	---	---	---	
2-Methylnaphthalene	---	---	60 J	450	---	450
2-Nitroaniline	---	13 J	---	---	---	
Dimethyl Phthalate	---	8.1 J	---	---	---	
Acenaphthylene	32 J	69 J	340 J	220 J	---	
3-Nitroaniline	---	7.2 J	---	---	---	
Acenaphthene	32 J	54 J	120 J	70 J	---	
4-Nitrophenol	---	54 J	---	---	---	
Dibenzofuran	33 J	420	93 J	210 J	---	420
2,4-Dinitrotoluene	---	---	---	35 J	---	
2,6-Dinitrotoluene	---	98 J	---	230 J	---	
Diethylphthalate	7.7 J	---	14 J	---	11 J	
Fluorene	22 J	51 J	170 J	89 J	25 J	
N-Nitrosodiphenylamine (1)	25 J	30 J	35 J	6.9 J	---	
Pentachlorophenol	---	---	250 J	---	---	
Phenanthrene	460	1800	2600	1600	570	1406
Anthracene	---	190 J	2800	290 J	90 J	2800
Di-n-Butylphthalate	---	1800	1700	1200	---	1567
Fluoroanthene	---	2300	10000	3700	1300	4325
Pyrene	---	880	5200	1400	550	2008
Butylbenzylphthalate	150 J	120 J	140 J	56 J	250 J	
Benzo(a)Anthracene	270 J	500	2700	970	340 J	1390
bis(2-Ethylhexyl)Phthalate	2000	260 J	510 J	---	280 J	2000
Chrysene	420	700	3400	1500	530	1310
Di-n-Octyl Phthalate	16 J	---	11 J	7.7 J	---	
Benzo(b)Fluoranthene	---	420	3000	3000	---	2140
Benzo(k)Fluoranthene	---	530	4000	3400	---	2663
Benzo(a)Pyrene	430	330 J	3300	1000	490	1305
Indeno(1,2,3-cd)Pyrene	270 J	91 J	1200	280 J	160 J	1200
Dibenz(a,h,i)Anthracene	---	---	170 J	150 J	69 J	
Benzo(g,h,i)Perylene	330 J	---	1700	33 J	100 J	1700

Concentrations given in ug/kg (ppb)

--- - Compound not detected

J - Reported value is less than the detection limit.

X - Indicates duplicate sample.

Last two digits in sample number indicate sample depth.

TABLE 9B  
 BACKGROUND  
 PESTICIDE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	GB-NORTH- 0.1-0.5	GB-SOUTH- 0.1-0.5	GB-EAST- 0.1-0.5	GB-WEST- 0.1-0.5	GB-01-X	Background Mean
Dieldrin	137	---	280	---	82	166
4,4'-DDE	---	313	---	90	---	202
Endrin	---	---	---	74	---	74
4,4'-DDD	---	---	---	32	---	32
4,4'-DDT	49	255	57	256	52	134
alpha-Chlordane	---	113	---	102	---	108
gamma-Chlordane	---	131	---	127	---	129

Concentrations given in ug/kg (ppb)

--- - Compound not detected

J - Reported value is less than the detection limit.

X - Indicates duplicate sample.

Last two digits in sample number indicate sample depth.

Area A

TABLE 10A  
 AREA A  
 VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-A1- 2-6	SB-A2- 4-6	SB-A3- 4-6	SB-A4- 4-6	SB-A4- X	Background Mean ***
2-Butanone	---	---	---	---	---	1000
1,1,1-Trichloroethane	---	---	---	860 *	---	500
Tetrachloroethene	---	---	---	400 J	---	500
Toluene	---	---	---	---	---	500
Ethylibenzene	---	---	---	250 J	---	500
Total Xylenes	---	---	---	590 *	---	500

TABLE 10A (Cont.)  
**AREA A**  
**VOLATILE ANALYTICAL RESULTS**  
**THE JENNISON-WRIGHT FACILITY**  
**GRANITE CITY, ILLINOIS**

CHEMICAL PARAMETER	SB-A5- 4-6	SB-A5- X	SB-A6- 4-6	SB-A6- X	Background Mean ***
2-Butanone	---	1700 *	640 J	---	1000
1,1,1-Trichloroethane	---	---	490 J	---	500
Tetrachloroethene	---	---	---	---	500
Toluene	---	110 J	120 J	---	500
Ethylbenzene	---	---	1200 *	140 J	500
Total Xylenes	---	---	1600 *	210 J	500

Concentrations given in ug/kg (ppb)

\* - Concentrations above background

\*\*\* - Background Mean is method detection limit.

RE - Sample reanalyzed, both initial and reanalysis failed surrogate recovery limits

X - Indicates duplicate sample

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth

TABLE 10B  
AREA A  
SEMI-VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-A1- 2-4	SB-A2- 4-6	SB-A3- 4-6	SB-A4- 4-6	SB-A4- X	Background Mean
Phenol	---	36 J	---	17 J	4.7 J	
bis(2-Chloroisopropyl)Ether	---	0.25 J	---	---	0.46 J	
4-Methylphenol	---	---	1.4 J	---	---	
N-Nitroso-Di-n-Propylamine	---	2.4 J	---	6.9 J	2.2 J	
Isophorone	0.67 J	---	---	---	---	
Benzoic Acid	---	---	---	---	---	
Naphthalene	4.2 J	2 J	440	5.7 J	2.8 J	465
4-Chloro-3-Methyphenol	---	---	8.1 J	---	---	350
2-Methylnaphthalene	---	1.3 J	110 J	0.49 J	---	450
Acenaphthylene	---	---	38 J	---	---	
Acenaphthene	---	0.98 J	280 J	---	---	
Dibenzofuran	---	1.3 J	210 J	0.88 J	---	420
2,6-Dinitrotoluene	---	---	360 *	---	---	
Diethylphthalate	21 J	15 J	9.2 J	4.7 J	10 J	
Fluorene	2.9 J	2 J	340 J	---	---	
N-Nitrosodiphenylamine (1)	26 J	20 J	34 J	25 J	31 J	
Pentachlorophenol	---	---	---	---	1100 J	
Phenanthrene	25 J	26 J	990	12 J	36 J	1406
Anthracene	4.3 J	28 J	170 J	2 J	---	2800
Di-n-Butylphthalate	420	360	1500	---	---	1567
Fluoroanthene	24 J	26 J	850	18 J	31 J	4325
Pyrene	24 J	22 J	390	15 J	28 J	2008
Butylbenzylphthalate	89 J	76 J	62 J	9.8 J	20 J	
Benzo(a)Anthracene	---	5.7 J	200 J	2.1 J	---	1390
bis(2-Ethylhexyl)Phthalate	---	290 J	190 J	41 J	---	2000
Chrysene	---	---	250 J	6.6 J	7.7 J	1310
Di-n-Octyl Phthalate	3.5 J	---	---	---	44 J	
Benzo(b)Fluoranthene	---	---	220 J	---	---	2140
Benzo(k)Fluoranthene	---	---	160 J	---	---	2643
Benzo(a)Pyrene	---	---	180 J	---	---	1305
Indeno(1,2,3-cd)Pyrene	---	---	120 J	---	---	1200
Dibenz(a,h)Anthracene	---	---	54 J	---	---	
Benzo(g,h,i)Perylene	---	---	150 J	---	---	1700

TABLE 10B (Cont.)

AREA A

SEMI-VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-A5- 4-6	SB-A5- X	SB-A6- 4-6	SB-A6- X	Background Mean
Phenol	---	---	---	---	
bis(2-Chloroisopropyl)Eth	---	---	---	---	
4-Methylphenol	---	---	---	---	
N-Nitroso-Di-n-Propylamine	3.4 J	11 J	3.4 J	5.6 J	
Isophorone	---	---	---	---	
Benzoic Acid	---	---	---	17 J	
Naphthalene	5.2 J	3.2 J	2.7 J	---	465
4-Chloro-3-Methyphenol	---	---	---	---	350
2-Methylnaphthalene	1.2 J	---	---	---	450
Acenaphthylene	4.4 J	1.5 J	6.4 J	14 J	
Acenaphthene	---	---	0.84 J	1.9 J	
Dibenzofuran	---	---	2.1 J	3.8 J	420
2,6-Dinitrotoluene	---	---	---	---	
Diethylphthalate	10 J	17 J	3.4 J	9.6 J	
Fluorene	---	---	---	5.6 J	
N-Nitrosodiphenylamine (1	11 J	11 J	8 J	11 J	
Pentachlorophenol	---	---	---	---	
Phenanthrene	11 J	9.8 J	30 J	53 J	1406
Anthracene	12 J	10 J	32 J	56 J	2800
Di-n-Butylphthalate	---	---	---	---	1567
Fluoroanthene	89 J	50 J	200 J	390	4325
Pyrene	110 J	42 J	120 J	220 J	2008
Butylbenzylphthalate	12 J	17 J	12 J	16 J	
Benzo(a)Anthracene	---	---	---	110 J	1390
bis(2-Ethylhexyl)Phthalat	62 J	69 J	41 J	54 J	2000
Chrysene	45 J	17 J	57 J	110 J	1310
Di-n-Octyl Phthalate	---	---	---	---	
Benzo(b)Fluoranthene	---	---	50 J	21 J	2140
Benzo(k)Fluoranthene	---	---	42 J	100 J	2643
Benzo(a)Pyrene	---	---	22 J	47 J	1305
Indeno(1,2,3-cd)Pyrene	---	---	---	11 J	1200
Dibenz(a,h,)Anthracene	---	---	---	---	
Benzo(g,h,i)Perylene	---	---	---	---	1700

Concentrations given in ug/kg (ppb)

\* - Concentrations above background

RE - Sample reanalyzed; both initial and reanalysis failed surrogate recovery limits

X - Indicates duplicate sample

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth

TABLE 10C  
 AREA A  
 METALS ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-A1- 2-4	SB-A2- 4-6	SB-A3- 4-6	SB-A4- 4-6	SB-A4- X	Background Mean
Arsenic	5.6 J	3.1 J	9.36	1.63 J	2.41 J	16
Beryllium	3.54	2.84	3.68	2.11	2.29	11
Chromium	18.6	13.8	18	5.81	6.05	19
Copper	7.09	3.74	8.71	4.1	---	43
Lead	12.2	10.1	12	2.42	2.14	354
Mercury	0.12	0.089	0.081	0.071	0.41 *	0.2
Nickel	17.8	11.7	18.3 *	9.41	8.24	18
Zinc	36.2	44	37.8	30	23.1	261

TABLE 10C (Cont.)  
**AREA A**  
**METALS ANALYTICAL RESULTS**  
**THE JENNISON-WRIGHT FACILITY**  
**GRANITE CITY, ILLINOIS**

CHEMICAL PARAMETER	SB-A5- 4-6	SB-A5- X	SB-A6- 4-6	SB-A6- X	Background Mean
Arsenic	3.2 J	2.69 J	3.61 J	2.29 J	16
Beryllium	2.71	2.9	3.42	3.09	11
Chromium	6.15	9.03	9.73	8.55	19
Copper	---	---	4.81	5.08	43
Lead	2.13	2.2	2.31	2.22	354
Mercury	0.1	0.14	1.12 *	0.22 *	0.2
Nickel	8.53	9.77	13.2	13	18
Zinc	24.2	26.5	36.8	31.4	261

Concentrations given in mg/kg (ppm)

\* - Concentrations above background

RE - Sample reanalyzed; both initial and reanalysis failed surrogate recovery limits

X - Indicates duplicate sample

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth

**Area B**

TABLE 11A  
AREA B  
VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-B1- 4-6	SB-B2- 18-20	SB-B3- 10-12	Background Mean ***
Ethylbenzene	---	780	*	500
Total Xylenes	---	2300	*	500

Concentrations given in ug/kg (ppb)

\* - Concentration above background

\*\*\* - Background Mean is method detection limit

--- - Compound not detected

J - Reported value is less than the detection limit.  
Last two digits in sample number indicate sample depth.

TABLE 11B  
 AREA B  
 SEMI-VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-B1- 4-6	SB-B2- 18-20	SB-B3- 10-12	Background Mean
Phenol	---	23 J	---	
N-Nitroso-Di-Propylamine	8.5 J	---	16 J	
Naphthalene	37 J	120000 *	130 J	465
2-Methylnaphthalene	---	1400 *	---	450
2-Chloronaphthalene	---	82 J	---	350
Dimethyl Phthalate	---	25 J	---	
Acenaphthylene	59 J	610 *	20 J	
3-Nitroaniline	---	49 J	---	
Acenaphthene	16 J	25000 *	160 J	
Dibenzofuran	10 J	---	160 J	420
2,6-Dinitrotoluene	---	420 *	---	
Diethylphthalate	---	10 J	---	
Fluorene	15 J	3100 *	200 J	
N-Nitrosodiphenylamine (1)	---	410 *	---	
Pentachlorophenol	---	1400 J	1800 *	
Phenanthrene	120 J	110000 *	710	1406
Anthracene	170 J	68000 *	76 J	2800
Di-n-Butylphthalate	710	2400 *	1200	1567
Fluoranthene	2200	69000 *	270 J	4325
Pyrene	1100	2900 *	110 J	2008
Butylbenzylphthalate	160 J	100 J	32 J	
Benzo(a)Anthracene	320 J	6700 *	40 J	1390
bis(2-Ethylhexyl)Phthalate	130 J	380	51 J	2000
Chrysene	660	5100 *	---	1310
Di-n-Octyl Phthalate	31 J	---	---	
Benzo(b)Fluoranthene	650	3400 *	---	2140
Benzo(k)Fluoranthene	580	4300 *	---	2643
Benzo(a)Pyrene	440	3800 *	---	1305
Indeno(1,2,3-cd)Pyrene	87 J	540	---	1200
Dibenzo(a,h,)Anthracene	---	350 *	---	
Benzo(g,h,i)Perylene	---	200 J	---	1700

Concentrations given in ug/kg (ppb)

\* - Concentration above background

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth.

TABLE 11C  
AREA B  
METALS ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-B1- 4-6	SB-B2- 18-20	SB-B3- 10-12	Background Mean
Antimony	4.62 J	---	---	10
Arsenic	3.22 J	3.18 J	10 J	16
Beryllium	5.21	3.56	3.67	11
Chromium	7.93	26.3 *	20.3 *	19
Copper	3.55	19.2	7.34	43
Lead	12.2	14.7	12	354
Mercury	0.1	0.11	0.2	0.2
Nickel	12.8	16	19.9	18
Selenium	---	---	---	---
Silver	---	---	---	0.86
Thallium	---	---	---	---
Zinc	30.4	48.9	36.6	261

Concentrations given in mg/kg (ppm)

\* - Concentration above background

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth.

**Area C**

TABLE 12A  
AREA C  
VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-C1- 4-6	SB-C2- 6-8	SB-C2- X	SB-C2- 16-18**	Background Mean ***
Toluene	---	580 *	310 J		500
Ethylbenzene	---	1000 *	540 *		500
Total Xylenes	---	6800 *	3700 *		500

Concentrations given in ug/kg (ppb)

\* - Concentration exceeds background

\*\* - Volatile organic analyses not performed

\*\*\* - Background Mean is method detection limit

X - Indicates duplicate sample

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth.

TABLE 12B  
AREA C  
SEMI-VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

Woodward-Clyde Consultants

CHEMICAL PARAMETER	SB-C1- 4-6	SB-C2- 6-8	SB-C2- X	SB-C2- 16-18	Background Mean
Phenol	---	18 J	---	---	
bis(2-Chloroethyl)Ether	---	---	1.9 J	12 J	350
Benzyl Alcohol	1.5 J	---	0.7 J	---	350
2-Methylphenol	3.3 J	---	2.5 J	---	350
bis(2-Chloroisopropyl)Ether	170 J	---	---	---	
4-Methylphenol	1.5 J	3.6 J	11 J	---	
N-Nitroso-Di-n-Propylamine	490 J	---	---	57 J	
2-Nitrophenol	---	2.4 J	39 J	11 J	350
Benzoic Acid	53 J	3.4 J	110 J	---	
bis(2-Chloroethoxy)Methane	28 J	4.5 J	---	250 J	
Naphthalene	1100 *	150 J	2100 *	5500 *	465
4-Chloro-3-Methyphenol	---	12 J	17 J	---	350
2-Methylnaphthalene	200000 *	690 *	5500 *	---	450
2,4,6-Trichlorophenol	---	---	24 J	---	350
2-Choronaphthalene	4900 J	6.2 J	86 J	---	350
2-Nitroaniline	---	---	340 J	---	
Acenaphthylene	76 J	25 J	210 J	1200 *	
3-Nitroaniline	---	8.5 J	91 J	---	
Acenaphthene	300 J	81 J	650 *	430 *	
4-Nitrophenol	---	47 J	---	580 J	
Dibenzofuran	6400 *	120 J	---	---	420
2,4-Dinitrotoluene	17000 *	170 J	---	1300 *	
2,6-Dinitrotoluene	59 J	21 J	180 J	---	
Diethylphthalate	93 J	12 J	---	---	
4-Chlorophenyl-phenylether	73 J	---	---	---	350
Fluorene	13 J	220 J	1700 *	330 *	
4-Nitroaniline	---	98 J	---	---	1700
4,6-Dinitro-2-Methylphenol	66 J	8.5 J	---	270 J	1700
N-Nitrosodiphenylamine (1)	7000 *	100 J	740 *	2000 *	
Pentachlorophenol	670000 *	38000 *	---	---	
Phenanthrene	35000 *	1100	3800 *	2300 *	1406
Anthracene	1300	1200	4200 *	2500	2800
Fluoranthene	13000 *	380	830	810	4325
Pyrene	2100 *	440 J	330 J	1000	2008
Butylbenzylphthalate	---	26 J	---	11 J	
Benzo(a)Anthracene	1300	74 J	84 J	68 J	1390
bis(2-Ethylhexyl)Phthalate	---	810	---	---	2000
Chrysene	1500 *	79 J	88 J	68 J	1310
Di-n-Octyl Phthalate	---	6.4 J	---	2.5 J	
Benzo(b)Fluoranthene	---	43 J	130 J	32 J	2140
Benzo(k)Fluoranthene	---	53 J	---	46 J	2643
Benzo(a)Pyrene	440	---	62 J	---	1305
Indeno(1,2,3-cd)Pyrene	270 J	---	5.1 J	---	1200
Benzo(g,h,i)Perylene	330 J	---	23 J	---	1700

Concentrations given in ug/kg (ppb)

\* - Concentration exceeds background

--- - Compound not detected

J - Reported value is less than the detection limit.

X - Indicates duplicate sample

Last two digits in sample number indicate sample depth.

TABLE 12C  
 AREA C  
 PESTICIDES ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-C1- 4-6	SB-C2- 6-8	SB-C2- X	SB-C2- 16-18	Background Mean
alpha-BHC	20 *	---	---	---	8
beta-BHC	---	---	49 *	---	8
Aldrin	48 *	---	---	---	8

Concentrations given in ug/kg (ppb)

\* - Concentration exceeds background

--- - Compound not detected

J - Reported value is less than the detection limit.

X - Indicates duplicate sample

Last two digits in sample number indicate sample depth.

TABLE 12D  
 AREA C  
 METALS ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-C1- 4-6	SB-C2- 6-8	SB-C2- X	SB-C2- 16-18	Background Mean
Arsenic	9.52	1.64 J	1.33 J	0.77 J	16
Beryllium	4.03	3.36	3.36	1.6	11
Chromium	24.3 *	10.1	10.8	6.72	19
Copper	11.6	9.58	6.89	---	43
Lead	14.7	4.52	3.11	0.6 J	354
Mercury	0.075	---	---	---	0.2
Nickel	16.8	12.4	11.3	---	18
Zinc	36.8	52.8	36.3	14.6	261

Concentrations given in mg/kg (ppm)

K - Concentration exceeds background

--- - Compound not detected

J - Reported value is less than the detection limit.

X - Indicates duplicate sample

Last two digits in sample number indicate sample depth.

**Area D**

TABLE 13A  
AREA D  
VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-01- 18-20	SB-02- 10-12	SB-02- X**	SB-02- XRE**	Background Mean ***
Acetone	---	---	4000	*	---
Benzene	3000	*	8900	*	6300
Toluene	6400	*	49000	*	43000
Ethylbenzene	6200	*	84000	*	81000
Total Xylenes	150000	*	210000	*	210000

Concentrations given in ug/kg (ppb)

\* - Concentration above background

\*\* - Sample only analyzed for volatiles

\*\*\* - Background Mean is method detection limit.

X - Indicates duplicate sample

--- - Compound not detected

J - Reported value is less than the detection limit.

RE - Sample reanalyzed; both initial and re-analysis failed surrogate recovery limits

Last two digits in sample number indicate sample depth.

TABLE 13B  
 AREA D  
 SEMI-VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-01- 18-20	SB-02- 10-12	SB-02- X**	SB-02- XRE**	Background Mean
Phenol	240000 J	---			
2-Methylphenol	8200 J	---			350
4-Methylphenol	23000 J	---			350
Hexachloroethane	2500 J	---			
2,6-Dimethylphenol	25000 J	---			
bis(2-Chloroethoxy)Methane	310 J	---			
Naphthalene	4.0E6	210000 *			465
2-Methylnaphthalene	780000 *	42000 *			450
2-Chloronaphthalene	3100 J	---			350
2-Nitroaniline	85000 J	---			
Acenaphthylene	120000 J	4000 J			
3-Nitroaniline	2200 J	---			
Acenaphthene	510000 *	61000 *			
Dibenzofuran	480000 *	45000 *			420
2,4-Dinitrotoluene	43000 *	---			
Diethylphthalate	280 J	---			
Fluorene	930000 *	87000 *			
N-Nitrosodiphenylamine (1)	16000 J	1800 J			
Pentachlorophenol	4600 J	13000 J			
Phenanthrene	1.5E6	300000 *			1406
Anthracene	1.6E6	---			2800
Di-n-Butylphthalate	7600 BJ	---			1567
Fluoranthene	1.5E6	230000 *			4325
Pyrene	1.2E6	190000 *			2008
Benzo(a)Anthracene	200000 *	---			1390
Chrysene	220000 *	21000 *			1310
Benzo(b)Fluoranthene	43000 *	57000 *			2140
Benzo(k)Fluoranthene	220000 *	25000 J			2643
Benzo(a)Pyrene	150000 *	---			1305
Indeno(1,2,3-cd)Pyrene	39000 *	---			1200
Benzo(g,h,i)Perylene	---	7800 J			1700

Concentrations given in ug/kg (ppb)

\* - Concentration above background

\*\* - Sample only analyzed for volatiles

X - Indicates duplicate sample

--- - Compound not detected

J - Reported value is less than the detection limit.

RE - Sample reanalyzed; both initial and re-analysis failed surrogate recovery limits  
 Last two digits in sample number indicate sample depth.

TABLE 13C  
 AREA D  
 PESTICIDE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-D1- 18-20	SB-D2- 10-12	SB-D2- X**	SB-D2- XRE**	Background Mean
Dieldrin	128	---			166
Endrin	107	*	---		74
Endosulfan II	31	*	---		16
4,4'-DDD	228	*	---		32

Concentrations given in ug/kg (ppb)

\* - Concentration above background

\*\* - Sample only analyzed for volatiles

X - Indicates duplicate sample

--- - Compound not detected

Last two digits in sample number indicate sample depth.

TABLE 13D  
 AREA D  
 METALS ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-D1- 18-20	SB-D2- 10-12	SB-D2- X**	SB-D2- XRE**	Background Mean
Arsenic	6.19	9.62			16
Beryllium	2.42	4.81			11
Cadmium	1.76	---			5
Chromium	11.3	34.2 *			19
Copper	3.88	13			63
Lead	8	15.5			354
Mercury	0.31 *	0.23 *			0.2
Nickel	11.5	13.2			18
Zinc	478 *	46.1			261

Concentrations given in mg/kg (ppm)

\* - Concentration above background

\*\* - Sample only analyzed for volatiles

X - Indicates duplicate sample

--- - Compound not detected

Last two digits in sample number indicate sample depth.

**Areas E & H**

TABLE 14A  
 AREAS E AND H  
 VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-E1- 14-16	SB-E2- 4-6	SB-H1- 4-6	Background Mean ***
Chloroform	150 J	---	---	500
Benzene	2600 *	---	---	500
Toluene	12000 *	---	---	500
Ethylbenzene	9600 *	---	---	500
Styrene	5300 *	---	---	500
Total Xylenes	34000 *	---	---	500

Concentration given in ug/kg (ppb)

\* - Concentration above background

\*\*\* - Background Mean is method detection limit.

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth.

TABLE 14B  
 AREAS E AND H  
 SEMI-VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-E1- 14-16	SB-E2- 4-6	SB-H1- 4-6	Background Mean
Phenol	18000 J	580 *	5.5 J	
2-Methylphenol	9700 J	180 J	---	350
4-Methylphenol	35000 *	1100 *	---	
N-Nitroso-Di-n-Propylamine	---	9.1 J	4.9 J	
2,4-Dimethylphenol	11000 J	38 J	---	
Benzoic Acid	41000 J	---	---	
Naphthalene	4.2E6	640 *	29 J	465
2-Methylnaphthalene	520000 *	150 J	9.5 J	450
2-Nitroaniline	39000 J	7.2 J	---	
Dimethyl Phthalate	---	2.7 J	---	
Acenaphthylene	64000 *	17 J	6.7 J	
3-Nitroaniline	2100 J	---	---	
Acenaphthene	650000 *	480 *	9.6 J	
Dibenzofuran	530000 *	480 *	16 J	420
2,4-Dinitrotoluene	29000 *	---	---	
2,6-Dinitrotoluene	---	53 J	---	
Diethylphthalate	---	23 J	6.3 J	
Fluorene	930000 *	460 *	23 J	
4,6-Dinitro-2-Methylphenol	---	780 J	---	1700
N-Nitrosodiphenylamine (1)	12000 J	28 J	32 J	
Pentachlorophenol	27000 J	---	---	
Phenanthrene	2.8E6	220 J	170 J	1406
Anthracene	---	23 J	32 J	2800
Di-n-Butylphthalate	2600 BJ	210 J	---	1567
Fluoranthene	1.3E6	59 J	200 J	4325
Pyrene	1.1E6	39 J	160 J	2008
Butylbenzylphthalate	---	28 J	4.5 J	
Benzo(a)Anthracene	140000 *	15 J	63 J	1390
bis(2-Ethylhexyl)Phthalate	---	3.3 J	27 J	2000
Chrysene	140000 J	---	88 J	1310
Di-n-Octyl Phthalate	---	0.98 J	---	
Benzo(b)Fluoranthene	52000 J	---	70 J	2140
Benzo(k)Fluoranthene	---	---	80 J	2643

Concentration given in ug/kg (ppb)

\* - Concentration above background

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth.

TABLE 14C  
AREAS E AND H  
PESTICIDE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-E1- 14-16	SB-E2- 4-6	SB-H1- 4-6	Background Mean
Heptachlor epoxide	8.7 *	---	---	8
Methoxychlor	715 *	---	---	80

Concentration given in ug/kg (ppb)

\* - Concentration above background

--- - Compound not detected

Last two digits in sample number indicate sample depth.

TABLE 14D  
AREAS E AND H  
METALS ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-E1- 14-16	SB-E2- 4-6	SB-H1- 4-6	Background Mean
Arsenic	1.69 J	20.3 *	3.59 J	16
Beryllium	3.88	4.09	9.23	11
Chromium	12.1	24.1 *	17.1	19
Copper	15	10.1	17.8	43
Lead	1.95	16.6	14.4	354
Mercury	0.029 J	0.17	0.066	0.2
Nickel	11.6	17.4	16.4	18
Zinc	36.3	36.9	55.3	261

Concentration given in mg/kg (ppm)

\* - Concentration above background

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth.

**Area F**

TABLE 15A  
AREA F  
VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F1- 2-4	SB-F2- 18-20	SB-F3- 6-8	SB-F4- 4-6	SB-F5- 4-6	SB-F6- 6-8	SB-F7- 4-6	Background Mean***
Toluene	---	360 J	---	---	---	---	---	500
Styrene	---	---	310 J	160 J	---	---	---	500
Total Xylenes	---	650 *	---	---	---	---	---	500

TABLE 15A (Cont.)  
AREA F  
VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F8- 6-8	SB-F9- 6-6	SB-F10- 6-8	SB-F11- 6-6	SB-F12- 2-4	Background Mean ***
Toluene	---	---	---	---	---	500
Styrene	---	---	---	---	---	500
Total Xylenes	---	---	---	---	---	500

Concentrations given in ug/kg (ppb)

\* - Concentration above background

\*\*\* - Background Mean is method detection limit

--- - Compound not detected

J - Reported value is less than the detection limit.  
Last two digits in sample number indicate sample depth

# Woodward-Clyde Consultants

TABLE 15B

AREA F

SEMI-VOLATILE ANALYTICAL RESULTS

THE JENNISON-WRIGHT FACILITY

GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F1- 2-4	SB-F2- 18-20	SB-F3- 6-8	SB-F4- 4-6	SB-F5- 4-6	SB-F6- 6-8	SB-F7- 4-6	Background Mean
Phenol	---	24 J	---	---	38 J	---	9.4 J	
2-Methylphenol	---	260 J	---	---	---	---	---	350
bis(2-Chloroisopropyl)Ether	---	0.77 J	---	---	---	---	---	
4-Methylphenol	---	58 J	---	---	16 J	3.8 J	---	
N-Nitroso-Di-n-Propylamine	3.8 J	---	---	5.6 J	5.9 J	---	2.1 J	
Nitrobenzene	---	---	---	---	---	---	---	
Isophorone	0.63 J	---	---	1.5 J	---	---	0.7 J	
2,4-Dimethylphenol	---	830 *	---	---	---	1.5 J	---	
Benzoic Acid	---	160 J	---	---	---	---	---	
Naphthalene	7.4 J	23000 *	28 J	5.1 J	1700 *	270 J	16 J	465
4-Chloroaniline	---	3.2 J	---	---	---	---	---	
4-Chloro-3-Methyphenol	---	10 J	---	---	---	15 J	---	350
2-Methylnaphthalene	---	6900 *	4.5 J	---	580 *	110 J	---	450
2,4,5-Trichlorophenol	---	30 J	---	---	---	---	---	1700
2-Chloronaphthalene	---	10 J	---	---	---	---	---	350
2-Nitroaniline	---	200 J	---	---	---	32 J	---	
Dimethyl Phthalate	---	4.8 J	---	---	2.5 J	1.2 J	---	
Acenaphthylene	9.2 J	270 J	---	6 J	95 J	20 J	12 J	
3-Nitroaniline	---	---	---	---	---	---	---	
Acenaphthene	2.6 J	7800 *	5.8 J	1.8 J	1900 *	270 J	11 J	
2,4-Dinitrophenol	---	20 J	---	---	---	---	---	1700
4-Nitrophenol	---	400 J	---	---	210 J	---	---	
Dibenzofuran	---	7700 *	6.4 J	---	1600 *	260 J	8.6 J	420
2,4-Dinitrotoluene	---	97 J	---	---	---	---	---	
2,6-Dinitrotoluene	34 J	---	---	64 J	53 J	510 *	180 J	
Diethylphthalate	7.2 J	---	7.8 J	15 J *	7.8 J	11 J	8.3 J	
Fluorene	5.3 J	10000 *	5.7 J	2.3 J *	2700 *	430 *	21 J	
4-Nitroaniline	---	14 J	---	---	---	---	---	1700
4,6-Dinitro-2-Methylphenol	---	350 J	---	---	---	---	---	1700
N-Nitrosodiphenylamine (1)	12 J	230 J	44 J	---	29 J	32 J	11 J	
Pentachlorophenol	---	---	---	---	220 J	---	---	
Phenanthrene	51 J	33000 *	28 J	13 J	3100 *	870	62 J	1406
Anthracene	11 J	3000 *	2.4 J	14 J	3400 *	120 J	67 J	2800
Di-n-Butylphthalate	120 J	140 J	---	240 J	93 J	1500	170 J	1567
Fluoroanthene	260 J	17000 *	---	35 J	9700 *	390	89 J	4325
Pyrene	160 J	11000 *	---	20 J	3900 *	190 J	43 J	2008
Butylbenzylphthalate	13 J	7.6 J	---	48 J	11 J	39 J	19 J	
Benzo(a)Anthracene	30 J	2200 *	---	---	980	---	---	1390
bis(2-Ethylhexyl)Phthalate	190 J	360	79 J	30 J	94 J	---	180 J	2000
Chrysene	100 J	2500 *	---	22 J	1200	---	---	1310
Di-n-Octyl Phthalate	36 J	---	---	---	---	1.4 J	---	
Benzo(b)Fluoranthene	55 J	1200	---	---	820	---	---	2140
Benzo(k)Fluoranthene	56 J	1200	---	---	840	---	---	2643
Benzo(a)Pyrene	12 J	1100	---	---	420	---	17 J	1305
Indeno(1,2,3-cd)Pyrene	7 J	110 J	---	---	130 J	---	---	1200
Benzo(s,h,i)Perylene	---	51	---	---	120 J	---	---	1700

TABLE 15B (Cont.)

AREA F

SEMI-VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F8- 6-8	SB-F9- 6-6	SB-F10- 6-8	SB-F11- 6-6	SB-F12- 2-4	Background Mean
Phenol	5.4 J	2.3 J	---	---	---	
2-Methylphenol	---	---	---	---	---	350
bis(2-Chloroisopropyl)Ether	---	---	0.14 J	---	0.39 J	
4-Methylphenol	---	---	---	---	---	
N-Nitroso-Di-n-Propylamine	2.9 J	0.7 J	7 J	---	---	
Nitrobenzene	---	---	2.9 J	---	---	
Isophorone	---	---	3 J	---	---	
2,4-Dimethylphenol	---	---	---	---	---	
Benzoic Acid	---	---	57 J	---	---	
Naphthalene	25 J	14 J	29 J	---	---	465
4-Chloroaniline	---	---	---	---	---	
4-Chloro-3-Methyphenol	---	---	---	---	---	350
2-Methylnaphthalene	---	---	15 J	29 J	6 J	450
2,4,5-Trichlorophenol	---	---	---	---	---	1700
2-Chloronaphthalene	---	---	---	---	---	350
2-Nitroaniline	---	---	---	---	---	
Dimethyl Phthalate	---	---	---	---	---	
Acenaphthylene	3.8 J	13 J	9.5 J	20 J	3 J	
3-Nitroaniline	---	---	34 J	---	---	
Acenaphthene	78 J	9.6 J	29 J	5.9 J	5.4 J	
2,4-Dinitrophenol	---	---	---	---	---	1700
4-Nitrophenol	---	---	---	---	---	
Dibenzofuran	46 J	---	31 J	---	---	420
2,4-Dinitrotoluene	100 J	---	49 J	---	---	
2,6-Dinitrotoluene	---	---	250 J	350 *	450 *	
Diethylphthalate	---	6.5 J	17 J	---	---	
Fluorene	87 J	9.6 J	45 J	4.8 J	2.4 J	
4-Nitroaniline	---	---	---	---	---	1700
4,6-Dinitro-2-Methylphenol	---	---	---	---	---	1700
N-Nitrosodiphenylamine (1)	45 J	13 J	47 J	16 J	15 J	
Pentachlorophenol	---	---	---	97 J	---	
Phenanthrene	660	40 J	160 J	26 J	12 J	1406
Anthracene	58 J	43 J	38 J	---	---	2800
Di-n-Butylphthalate	92 J	130 J	110 J	300 J	360	1567
Fluoroanthene	510	140 J	150 J	39 J	21 J	4325
Pyrene	440	75 J	140 J	35 J	17 J	2008
Butylbenzylphthalate	---	14 J	16 J	---	---	
Benz(a)Anthracene	81 J	31 J	51 J	26 J	---	1390
bis(2-Ethylhexyl)Phthalate	74 J	160 J	39 J	---	---	2000

TABLE 15B (Cont.)

AREA F

SEMI-VOLATILE ANALYTICAL RESULTS

THE JENNISON-WRIGHT FACILITY

GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F8- 6-8	SB-F9- 4-6	SB-F10- 6-8	SB-F11- 4-6	SB-F12- 2-4	Background Mean
Chrysene	110 J	32 J	58 J	---	---	1310
Di-n-Octyl Phthalate	---	---	8.4 J	---	---	
Benzo(b)Fluoranthene	---	2.2 J	12 J	17 J	---	2140
Benzo(k)Fluoranthene	69 J	14 J	---	---	---	2643
Benzo(a)Pyrene	---	---	---	---	---	1305
Indeno(1,2,3-cd)Pyrene	---	---	---	---	---	1200
Benzo(g,h,i)Perylene	---	---	---	---	---	1700

Concentrations given in ug/kg (ppb)

\* - Concentration above background

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth

TABLE 15C  
AREA F  
PESTICIDE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F1- 2-4	SB-F2- 18-20	SB-F3- 6-8	SB-F4- 4-6	SB-F5- 4-6	SB-F6- 6-8	SB-F7- 4-6	Background Mean
Endosulfan sulfate	---	33 *	---	---	---	---	---	16

TABLE 15C (Cont.)

AREA F

PESTICIDE ANALYTICAL RESULTS

THE JENNISON-WRIGHT FACILITY

GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F8- 6-8	SB-F9- 4-6	SB-F10- 6-8	SB-F11- 4-6	SB-F12- 2-4	Background Mean
Endosulfan sulfate	---	---	---	---	---	16

Concentrations given in ug/kg (ppb)

\* - Concentration above background

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth

TABLE 150  
AREA F  
METALS ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F1- 2-4	SB-F2- 18-20	SB-F3- 6-8	SB-F4- 4-6	SB-F5- 4-6	SB-F6- 6-8	SB-F7- 4-6	Background Mean
Arsenic	2.87 J	1.13 J	---	2.96 J	2.34 J	7.17 J	2.52 J	16
Beryllium	4.92	6.65	3.48	5	4.08	2.36	6.7	11
Chromium	7.96	16.7	17.4	8	6.58	12.9	12.6	19
Copper	6.6	13.3	---	---	6.03	4.16	14.1	43
Lead	2.97	10.3	8.35	2.3	9.81	7.08	12.3	354
Mercury	0.06	0.077	0.088	0.051	0.048	0.072	0.086	0.2
Nickel	14.7	17.6	15	14.8	10.9	10.2	18.4	18
Zinc	30.6	52.6	37	30.6	28.4	23	37.1	261

TABLE 15D (Cont.)

## AREA F

METALS ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	SB-F8- 6-8	SB-F9- 4-6	SB-F10- 6-8	SB-F11- 4-6	SB-F12- 2-4	Background Mean
Arsenic	6.57 J	5.04 J	5.1 J	5.95 J	3.68 J	16
Beryllium	6.11	6.6	5.6	3.44	2.78	11
Chromium	9.08	12	8.68	18.4	14.3	19
Copper	10.4	10.6	5.52	6.62	5.32	43
Lead	11.3	12.8	2.02	32.3	9.37	354
Mercury	0.078	0.073	0.056	0.075	0.067	0.2
Nickel	17.6	18.6	14.4	15.1	13.9	18
Zinc	36.6	37.6	34.2	35.1	29	261

Concentrations given in mg/kg (ppm)

\* - Concentration above background

--- - Compound not detected

J - Reported value is less than the detection limit.

Last two digits in sample number indicate sample depth



TABLE 16A  
 SHALLOW GROUNDWATER  
 VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	WCC-01S	WCC-02S	WCC-03S	WCC-04S	WCC-04S	WCC-05S	WCC-05S	WCC-06S	WCC-07S
	RE								
1,1,1-Trichloroethane	---	---	---	---	---	1.2 J	1.1 J	---	---
1,1,2-Trichloroethane	---	---	---	---	---	---	---	1.6 J	---
1,1-Dichloroethene	---	---	---	---	---	11	---	---	---
1,2-Dichloropropane	---	---	---	---	---	0.27	---	---	---
2-Butanone	---	---	---	---	---	22	17	---	---
2-Hexanone	---	---	---	0.39 J	---	6.7 J	360 B	---	---
Acetone	---	11 B	24	7.2 BJ	5.4 BJ	35 B	130 B	4.5 J	14 B
Benzene	---	---	---	0.24 BJ	---	1200 B	670 B	0.31 J	0.13 J
Chloroform	---	---	---	---	0.54 BJ	46 B	1.9	1.3 J	---
Ethybenzene	---	---	---	---	---	45	72 J	---	---
Methylene Chloride	1.2 J	---	---	1.9 J	---	1100	290 B	---	---
Styrene	---	---	---	---	---	32	37 J	---	---
Toluene	---	---	---	---	---	830	860	2.6 J	0.06 J
Total Xylenes	---	---	---	---	---	170	160	---	---
Trans 1,2-Dichloroethene	---	---	---	---	---	30	0.082 J	---	---
Trichloroethene	---	---	---	---	---	0.51 J	0.36 J	---	---

TABLE 16A(Cont.)  
 SHALLOW GROUNDWATER  
 VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	WCC-08S	WCC-08S	WCC-09S	WCC-09S	WCC-10S	WCC-11S	WCC-15X	WCC-16X
	RE	RE						
1,1,1-Trichloroethane	2.7 J	---	1.4 J	1 J	---	---	---	---
1,1,2-Trichloroethane	---	---	0.39 J	---	---	---	---	---
1,1-Dichloroethene	---	---	---	---	---	---	---	---
1,2-Dichloropropane	---	---	---	---	---	---	---	---
2-Butanone	---	---	---	---	---	---	0.076 BJ	---
2-Hexanone	---	---	---	---	---	---	0.19 J	---
Acetone	110	---	260 B	20 B	---	---	4.2 BJ	15 B
Benzene	10 J	---	260 B	600 B	---	---	---	---
Chloroform	7.1 J	5.1 J	53 B	39 B	---	---	---	---
Ethylbenzene	---	---	53	57	---	---	---	---
Methylene Chloride	220	130	720 B	130 B	---	---	---	6 B
Styrene	---	---	40 J	37	---	---	---	---
Toluene	130	270	330	530	---	---	---	---
Total Xylenes	140	---	160	216	---	---	---	---
Trans 1,2-Dichloroethene	---	---	---	---	---	---	---	---
Trichloroethene	---	---	0.61 J	0.92 J	---	---	---	---

Concentrations given in ug/l (ppb)

--- - Compound not detected

J - Reported value is less than the detection limit.

B - Compound found in laboratory blank

RE - Sample reanalyzed; both initial and reanalysis failed surrogate recovery limits

15X - Duplicate of 11S

16X - Field blank

TABLE 16B  
 SHALLOW GROUNDWATER  
 SEMI-VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

	WCC-01S	WCC-02S	WCC-02S	WCC-03S	WCC-04S	WCC-04S	WCC-05S	WCC-06S	WCC-07S	WCC-08S		
	RE			RE			RE					
Phenol	---	---	---	---	---	---	9800	---	---	---	---	---
2-Methylphenol	---	---	---	---	---	---	5100	---	---	---	---	---
4-Methylphenol	---	---	---	---	---	---	16000	---	---	---	---	---
2,4-Dimethylphenol	---	---	---	---	---	---	2800	---	---	---	---	---
Benzoic Acid	---	---	---	---	---	---	450 J	---	---	---	---	---
Naphthalene	---	---	---	---	---	---	3400	3 J	---	64	---	---
2-Methylnaphthalene	---	---	---	---	---	---	94	---	---	86	---	---
Acenaphthylene	---	---	---	---	---	---	15	---	---	---	---	---
Acenaphthene	---	---	---	---	---	---	130	---	---	4 J	---	---
Dibenzofuran	---	---	---	---	---	---	91	---	---	---	---	---
Diethylphthalate	---	---	---	---	---	---	---	---	---	2 J	---	---
Fluorene	---	---	---	---	---	---	41	---	---	3 J	---	---
4,6-Dinitro-2-Methylphenol	---	---	---	---	---	---	46 J	---	---	---	---	---
Pentachlorophenol	---	---	---	---	---	---	9 J	---	---	39 J	---	---
Phenanthrene	---	---	---	---	---	---	51	---	---	5 J	---	---
Anthracene	---	---	---	---	---	---	4 J	---	---	---	---	---
Di-n-Butylphthalate	5 JB	3 J	2 J	3 JB	5 JB	---	9 JB	5 JB	---	7 JB	---	---
Fluoranthene	---	---	---	---	---	---	20 *	---	---	---	---	---
Pyrene	---	---	---	---	---	---	12 *	---	---	---	---	---
bis(2-Ethylhexyl)Phthalate	20 B	25 B	22 B	14 B	13 B	4 JB	6 JB	8 JB	---	18 B	---	---
Di-n-Octyl Phthalate	---	22 *	22 *	---	3 J	---	---	---	---	---	---	---

TABLE 16B(Cont)  
 GROUNDWATER  
 SEMI-VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

	WCC-085	WCC-095	WCC-105	WCC-115	WCC-15X	WCC-16X
RE	-----	-----	-----	-----	-----	-----
Phenol	---	260	---	---	---	9 J
2-Methylphenol	---	480	---	---	---	2 J
4-Methylphenol	---	1100	---	---	4 J	14
2,4-Dimethylphenol	4 J	640	---	---	---	---
Benzoic Acid	---	---	---	---	---	---
Naphthalene	78 *	5500	---	---	---	4 J
2-Methylnaphthalene	110 *	260	---	---	---	---
Acenaphthylene	---	---	---	---	---	---
Acenaphthene	3 J	190	---	---	---	---
Dibenzofuran	2 J	110	---	---	---	---
Diethylphthalate	---	---	---	---	---	---
Fluorene	3 J	85	---	---	---	---
4,6-Dinitro-2-Methylphenol	---	---	---	---	---	---
Pentachlorophenol	25 J	100	---	---	---	---
Phenanthrene	5 J	110	---	---	---	---
Anthracene	---	---	---	---	---	---
Di-n-Butylphthalate	3 J	3	---	9 JB	3 JB	4 JB
Fluoranthene	2 J	26	---	---	---	---
Pyrene	---	15	---	---	---	---
bis(2-Ethylhexyl)Phthalate	15 B	7	4 JB	15 B	21 B	5 JB
Di-n-Octyl Phthalate	24	---	---	4 J	27	---

Concentrations given in ug/l (ppb)

--- - Compound not detected

J - Reported value is less than the detection limit.

B - Compound found in laboratory blank

**TABLE 16C**  
**SHALLOW GROUNDWATER**  
**PESTICIDE ANALYTICAL RESULTS**  
**THE JENNISON-WRIGHT FACILITY**  
**GRANITE CITY, ILLINOIS**

CHEMICAL PARAMETER	WCC-01S	WCC-02S	WCC-03S	WCC-04S	WCC-05S	WCC-06S
Aldrin	---	0.62	---	---	---	---
Heptachlor	---	---	---	---	---	0.14
Endrin	---	---	---	---	---	---

TABLE 16C(Cont.)  
SHALLOW GROUNDWATER  
PESTICIDE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	WCC-07S	WCC-08S	WCC-09S	WCC-10S	WCC-11S	WCC-15X	WCC-16X
Aldrin	0.44	19.23	---	---	---	---	---
Heptachlor	---	10.68	---	---	---	---	---
Endrin	---	---	0.17	---	---	---	---

NO PESTICIDES OR PCB's FOUND IN DEEP WELLS OR FIELD BLANKS

Concentrations given in ug/l (ppb)

--- - Compound not detected

15X - duplicate of 11S

16X - Field blank

TABLE 160  
SHALLOW GROUNDWATER  
METAL ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

PARAMETER	WCC-01S	WCC-02S	WCC-03S	WCC-04S	WCC-05S	WCC-06S
Arsenic	0.002 J	0.0012 J	0.0026 J	0.0019 J	0.0034 J	0.001 J
Beryllium	---	---	---	---	---	---
Cadmium	---	---	---	---	---	---
Chromium	0.011	---	---	---	---	---
Copper	---	---	---	---	---	---
Lead	0.0045 J	---	---	---	---	---
Mercury	0.00022	---	0.00018 J	---	---	---
Nickel	---	---	---	---	0.036 J	---
Selenium	0.0018 J	0.029 J	0.0016 J	0.0014 J	0.0007 J	0.0063
Zinc	0.033	0.039	0.025	0.019 J	0.058	0.037

TABLE 16D(Cont)  
SHALLOW GROUNDWATER  
METAL ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

PARAMETER	WCC-07S	WCC-08S	WCC-09S	WCC-10S	WCC-11S	WCC-15X	WCC-16X
Arsenic	0.0011 J	0.0033 J	0.0018 J	0.008 J	---	0.0025 J	0.001
Beryllium	---	---	---	---	---	---	---
Cadmium	---	---	---	---	---	---	---
Chromium	---	---	---	0.016	---	---	---
Copper	---	---	---	---	---	---	---
Lead	---	---	---	---	---	---	---
Mercury	---	---	---	0.00022	---	---	---
Nickel	---	---	---	---	---	---	---
Selenium	0.0049 J	0.0016 J	0.0018 J	0.0025 J	0.0033 J	0.0033 J	0.0015
Zinc	0.019 J	0.051	0.037	0.078	0.034	0.05	0.013

Concentrations given in mg/l (ppm)

--- - Compound not detected

15X - Duplicate of 11S

16X - Field blank

TABLE 17A  
 SHALLOW GROUNDWATER  
 VOLATILE ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

CHEMICAL PARAMETER	WCC-01D	WCC-01D	WCC-03D	WCC-06M	WCC-06D	WCC-09D	WCC-19X	WCC-20X
	RE							
1,1,1-Trichloroethane	---	---	---	---	---	---	0.91 J	
2-Hexanone	---	1.5 BJ	---	---	---	---	---	---
Acetone	38 B	7.4 BJ	14 B	600 B	10 B	9.2 BJ	8 BJ	11 B
Benzene	---	1.1 BJ	---	0.43 BJ	0.18 BJ	---	0.11 BJ	5 BJ
Chloroform	0.03 BJ	0.95 BJ	0.44 BJ	0.06 BJ	0.06 BJ	0.29 BJ	0.42 BJ	0.20 BJ
Methylene Chloride	---	2.7 BJ	---	---	---	---	---	---
Toluene	---	0.16 J	1.1 J	---	---	---	---	0.73 J

Concentrations given in ug/l (ppb)

--- - Compound not detected

J - Reported value is less than the detection limit.

B - Compound found in laboratory blank

RE - Sample reanalyzed; both initial and reanalysis failed surrogate recovery limits

19X - Duplicate of 9D

20X - Field blank

TABLE 17B  
DEEP GROUNDWATER  
SEMI-VOLATILE ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS

	WCC-01D	WCC-3D	WCC-06M	WCC-06D	WCC-09D	WCC-20X
	-----	-----	-----	-----	-----	-----
Di-n-Butylphthalate	---	0.9 JB	---	---	---	2 J
bis(2-Ethylhexyl)Phthalate	---	2 JB	3 JB	4 JB	3 JB	5 JB
Di-n-Octyl Phthalate	---	9 J	---	---	---	4 J

Concentrations given in ug/l (ppb)

--- - Compound not detected

J - Reported value is less than the detection limit.

B - Compound found in laboratory blank

19X - Not analyzed for semi-volatiles

20X - Field blank

TABLE 17C  
 DEEP GROUNDWATER  
 METAL ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

PARAMETER	WCC-01D	WCC-03D	WCC-06M	WCC-06D	WCC-09D	WCC-19X	WCC-20X
Arsenic	0.0017 J	0.008 J	0.0012 J	0.0017 J	0.0014 J	0.0012 J	---
Beryllium	---	---	---	---	---	---	---
Cadmium	---	---	---	---	---	---	---
Chromium	---	---	---	---	---	---	---
Copper	---	---	---	---	---	---	0.116
Lead	---	---	---	---	---	---	---
Mercury	---	---	---	---	---	---	---
Nickel	---	---	0.049	---	---	---	---
Selenium	---	0.0006 J	---	---	---	---	---
Zinc	0.019 J	0.027	0.019 J	0.038	0.058	0.026	0.038

Concentrations given in mg/l (ppm)

--- - Compound not detected

19X - Duplicate of 9D

20X - Field blank



TABLE 18A  
 SOIL  
 DIOXIN/FURAN ANALYTICAL RESULTS  
 THE JENNISON-WRIGHT FACILITY  
 GRANITE CITY, ILLINOIS

SOIL SAMPLE IDENTIFICATION	HxCDD	HpCDD	OCDD	PeCDF	HxCDF	HpCDF	OCDF
GB-SOUTH	---	---	1.9	---	---	0.32	---
B3-10-12	---	---	0.74	---	---	---	---
D2-10-12	---	3.0	32.6	---	0.11	0.96	2.2
B2-18-20	---	4.5	26.5	---	0.2	1.2	2.2
C2-6-8	---	32.3	199	---	---	11.7	28.5
C2-16-18	---	---	---	---	---	---	---
C2-16-18	5.9	261	1694	---	13.5	114	297
A4-X	---	---	2.6	---	---	---	---
H1-16-18	---	150	720	0.94	---	21	42
E1-14-16	---	338	771	---	---	36.3	78.4
F8-6-8	---	0.84	3.6	---	---	---	---
D1-18-20	---	10.5	38.5	---	---	---	---
F11-4-6	---	---	1.4	---	---	---	---
C1-4-6	---	390	2900	---	---	170	500

Concentrations given in ng/g (ppb)  
 --- - Compound not detected

**TABLE 18B  
GROUNDWATER  
DIOXIN/FURAN ANALYTICAL RESULTS  
THE JENNISON-WRIGHT FACILITY  
GRANITE CITY, ILLINOIS**

<b>WATER SAMPLE IDENTIFICATION</b>	<b>HxCDD</b>	<b>OCDD</b>	<b>HxCDF</b>	<b>OCDF</b>
JWG-MW-08S	34.3	236	13.2	30.3
JWG-MW-09S	306	1109	---	93.1
JWG-MW-06S	---	12.9	---	---
JWG-MW-01S	---	---	---	---
JWG-MW-05S	46	243	4.6	12.4

**Concentrations given in ng/l (ppt)**  
**--- - Compound not detected**

## 1) Non-time critical removal -

- Removing liquids from existing tanks - dismantle
- " drums
- Area H - ~~soil term to prevent runoff~~  
restrict access with fencing.  
\$500,000 - \$1,000,000

## 2) Remedial

- Soil removal
- Begin RI
- 

Riedel does work - EPA does oversight.

PRP Search begun.